Chapter 4
Environmental Consequences

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4.0 Environmental Consequences

Chapter 4 describes the effects on the human environment of the Proposed Action and alternatives described in Chapter 2. The human environment is interpreted comprehensively to include the natural and physical environment and the relationship of people within that environment. Environmental consequences are usually described as being direct or indirect. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action, and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may be induced changes. Effects include ecological, aesthetic, historic, cultural, economic, social, or health. Effects include both beneficial and adverse effects.

Many of the proposed changes are largely administrative and would have little direct or indirect effect on the environment. They are intended to improve agency administrative efficiency and effectiveness, improve consistency across the BLM or meet other non-environmental objectives. This should result in management decisions that have greater support and sustainability. They may, however, result in indirect effects on the physical, biological, social, or economic aspects of the environment.

Because these are regulatory proposals, the BLM does not have site-specific information relating to their application on the ground. As a result, the impact analyses are necessarily general and programmatic. The BLM has an obligation to consider all relevant impacts related to proposals made subsequent to this rulemaking. If a key element as listed in Chapter 2 is not addressed, then it has been determined that it has no direct or indirect effect.

Changes in Chapter 4 based on comments on the draft EIS or BLM's further review and analysis include the following:

- Clarifications or additions to avoid misunderstanding of intent or meaning or to provide greater detail or further explanation:
  - Section 4.0, Environmental Consequences- text added to highlight the BLM's obligation to consider relevant impacts related to proposals made subsequent to this rulemaking.
  - Section 4.1, Assumptions- time periods which equate with short-term and long-term more adequately delineated. Short-term changed from "5 years" to "5 years or less"; Long-term changed from "20 years" to "5 to 20 years."
  - Section 4.2.1, Grazing Administration- Language added to provide greater detail and further explanation of the current situation with regard to the timeframe for taking appropriate action when a failed rangeland health determination is made; and language added to explain that no improvement in cost recovery is indicated if the existing service charges were continued.
  - Section 4.2.2, Vegetation- greater detail was provided concerning the effect of current regulations on vegetative resources.
  - Section 4.2.12, Paleontological and Cultural Resources- The term "Cultural" in the title of the section was replaced with the term "Heritage"

because comments found the term confusing given some discussions in the EIS of cultural lifeways. Statements were added to clarify the overall effects, and the relationship of the no-action alternative to Tribal consultation.

- Section 4.3.1, Grazing Administration- Additional information pertaining to quantification of the scope of the affect of some of the changes was added. Also additional explanation of service changes was inserted.
- Section 4.3.12, Paleontological and Cultural Resources- replaced the term "Cultural" in the title with "Heritage" in order to clarify the resources analyzed. This was done because of comments expressing confusion due to discussions in the EIS concerning cultural lifeways. Also, the final paragraph in this section was entirely replaced with text which provides greater detail and further explanation.
- Section 4.3.14, Social Conditions- The text under the sub-heading S*ocial, Economic, and Cultural Considerations* was highly modified in order to provide the additional detail requested by comments. This additional detail examines the affect of the rulemaking on certain groups in particular. This additional detail resulted in new analysis and modification detailed below.
- 4.4.12, Paleontological and Cultural Resources- replaced the term "Cultural" in the title with "Heritage" in order to clarify the resources analyzed. This was done because of comments expressing confusion due to discussions in the EIS concerning cultural lifeways. Also, a paragraph was added to this section which provides greater detail and further explanation.
- The term "brush" was removed in several places within the chapter where it had been used to describe vegetation which had invaded a rangeland site. Comments felt that BLM was demonstrating a bias against woody plants because they are not generally the primary forage of livestock. BLM has no such bias, but we removed the term and utilized "invasive species" as a general term that would not single out any particular plant life-form.

- Changes in text to correct errors or misleading statements made in draft EIS:
  - Section 4.2.1, Grazing Administration- The number of rangeland improvements being developed on an annual basis has decreased by 38% since 1995, not 25% as was originally stated in the draft EIS. The number has been changed to rectify this error.
  - Section 4.2.2, Vegetation- The statement "Under this alternative, substantial rancher participation in land treatment projects would not be expected" was removed. The proposed regulation makes no changes pertaining to incentives for involvement in land treatment projects. Both the current regulations and the proposed regulations contain the same language concerning land treatments: "The United States shall have title to nonstructural range improvements such as seeding,

spraying, and chaining." 43 CFR 4120.3-2 (c). Therefore, the deleted statement was removed because it may have fostered the false impression that the proposed regulations may be different than the current regulations in some manner calculated to stimulate substantial rancher participation in land treatment projects.

- Section 4.2.10, Recreation- Text modified to remove the misleading statement that highly developed recreational activities may not be affected by rangeland health. The statement was modified to reflect the correct assertion that highly developed recreational activities would experience no or minimal effects under existing management.

- Section 4.3.1, Grazing Administration- Text relating to the basis for rangeland health determinations was added and modified to clarify that only determinations that existing grazing management practices or levels of grazing use are significant factors in failing to achieve standards or conform with guidelines are required to be based upon assessment of standards and monitoring data. The original language made it seem as though all determinations would be required to be based upon both assessment and monitoring.

- Section 4.3.2, Vegetation- Removed the statement "for all determinations" which erroneously characterized which determinations would require monitoring data with regard to the basis for rangeland health determinations.

- Section 4.3.2.1, Riparian and Wetland Vegetation- The text was modified to clarify when both assessment and monitoring data are required.

- Section 4.3.5, Water Resources- The text was modified to clarify when both assessment and monitoring data are required.

- Section 4.3.6, Air Quality- The text was modified to clarify when both assessment and monitoring data are required.

- Section 4.3.7, Wildlife- the possible adverse effects were quantified through the addition of the the information that adverse effects would be short-term. Also, the reference to plants was removed to avoid confusion, as this section does not directly evaluate vegetation; it only evaluates the effects of the proposed action on vegetation as reflected by effects to wildlife.

- Section 4.3.10, Recreation- modified the text to correct the misleading statement that highly developed recreational activities are not affected by rangeland condition and reflect the proper statement that highly developed recreational activities are not affected by any changes to rangeland conditions expected under the rulemaking.

- Section 4.3.13, Economic Conditions- The text "or to simply continue livestock grazing activities at existing levels" was removed. The removed text was misleading and incorrect; the expectation is that changes will be phased during years 1, 3, and 5. Regardless, livestock grazing

activities will not be allowed to continue at existing levels beyond 5 years. Additionally, this section incorrectly characterized the possible adverse effects of the rulemaking, specifically the implementation of changes in grazing use, on rangeland conditions as long-term. This section analyses economic conditions, not rangeland conditions. The sections which characterize rangeland conditions as affected by the implementation of changes in grazing use in the rulemaking determined that adverse effects would only occur in the short-term. Therefore, the text in this section was modified to accurately reflect the analysis of effects to rangeland conditions as short-term. Subsequent analysis based on this change is described below.

- Section 4.4.1, Grazing Administration- The text under the subheading *Basis for Rangeland Health Determinations* has been modified to correct the mischaracterization of for which determinations the authorized officer must use either assessments or monitoring.
- Section 4.4.2, Vegetation- The text under the subheading *Basis for Rangeland Health Determinations* has been modified to correct the mischaracterization of for which determinations the authorized officer must use either assessments or monitoring.
- Section 4.4.7, Wildlife- The text under the subheading *Basis for Rangeland Health Determinations* has been modified to correct the mischaracterization of for which determinations the authorized officer must use either assessments or monitoring.
- Section 4.4.8, Special Status Species- The text under the subheading *Basis for Rangeland Health Determinations* has been modified to correct the mischaracterization of for which determinations the authorized officer must use either assessments or monitoring.
- Section 4.4.13, Economic Conditions- The text under the subheading *Basis for Rangeland Health Determinations* has been modified to correct the mischaracterization of for which determinations the authorized officer must use either assessments or monitoring.

- Clarifications or Additions or Deletions which reflect new analysis or information:
  - Section 4.3.4.1, Upland Soils- Text was modified to indicate the proposed action would have the net long term effects of maintaining or slowly improving the upland soil resource. This analysis updates the draft EIS assertion that both net short-and long term effect would be to maintain the present condition. Text was also added to reflect the new analysis that short-term adverse effects are possible where watershed cover is not adequate due to livestock management, and determination and implementation of management changes is extended due to the rulemaking.
  - Section 4.3.4.2, Riparian Soils- text was added to reflect the analysis that short- and long-term consequences

would be similar to those of upland soils except for the possibility of accelerated improvements in response to improved management practices. Additionally, text was added to reflect the analysis that short-term adverse effects are possible if conducting both assessment and monitoring postponed determination and implementation of management changes on soils with poor vegetative cover due to current management.

- Section 4.3.8, Special Status Species- Text was modified to reflect updated analysis.
- Section 4.3.10, Recreation- "short-term" added to denote quantification of the possible negative effects from delayed implementation.
- Section 4.3.13, Economic Conditions- New analysis of the permittee's economic viability, based on the correct quantification of the possible adverse affect of the rulemaking on rangeland conditions due to implementation of changes in grazing use, found possible short-term adverse effects. Therefore, the text reporting long-term effects was modified to reflect the short-term effects as determined by the new analysis.
- Section 4.3.14, Social Conditions- comments requesting additional details concerning certain groups spurred a more detailed analysis which determined the following changes were appropriate. The effects of the rulemaking are not minimal for all groups and that text has been stricken. The rulemaking will have a minor beneficial effect upon permittees and that statement has been added.
- The provision *Cooperation with State, County, and Locally Established Grazing Boards* was modified to reflect new analysis. The title now reads *Cooperation with State, Tribal, County, and Local Government-Established Grazing Boards* and the content is reflective of the change as well.
- The provision *Review of Biological Assessments and Evaluations* was removed to reflect the decision not to adopt the proposed changes it analyzed.

- Changes to Tables
  - Table 4.3.14.1, Social Effects of the Proposed Action. The direct impact on Permittees to the Social, Economic and Cultural Element was changed to minor beneficial due to new analysis after public comments.

4.1 Assumptions

The following general assumptions were made for purposes of analysis of direct and indirect effects of the changes to the regulations and alternatives. Many of these assumptions represent general trends and are not intended to be precise forecasts of the future.

- The time periods for analysis are
  - Short-term—5 years or less
  - Long-term—5 to 20 years
- BLM budgets will be flat over the 20-year analysis period.

- There will be no change or a slight decline in demand for forage for livestock over the analysis period.
- There will be continued population growth and pressure on public lands for multiple uses.
- Recreation use on public lands will continue to increase.
- Water demands will exceed supplies and there will be continued drawdowns.
- There will be periods of drought.
- The number of species listed under the Endangered Species act will continue to increase.
- Invasive species will continue to spread.
- Wildfire risk and frequency will increase.
- Public interest in archaeological sites and in heritage tourism will continue to increase.
- BLM will achieve "appropriate management level" in the wild horse and burro program by 2007.
- There will be no significant changes in the laws governing public lands.
- PM10 air quality problems will continue to increase in the West.
- There will be continued increases in energy–mineral development (regionally significant in some areas).

4.2 Alternative One: No Change in Regulations (No Action)

The direct and indirect effects on the human environment of the continuation of existing grazing regulations as outlined in Section 2.1 is presented in this section.

4.2.1 Grazing Administration

The present grazing regulations provide some opportunities for cooperative stewardship of public land resources. However, some of the administrative mechanisms for changing grazing management to achieve desired conditions on public rangelands are neither practical nor efficient and, as a result, do not encourage the development of partnerships. Some elements of the present regulations, such as the provisions on range improvement ownership and the 3-consecutive-year limit on nonuse, discourage or impede cooperative working relations with the permittees or lessees. Consideration of economic and social issues in the National Environmental Policy Act of 1969 (NEPA) document associated with changes in grazing use is not prescribed or consistently applied. There are also inconsistencies in other processes including cooperation with State, Tribal, county or local government- established grazing boards and data used to support rangeland health determinations. Also, the present regulations do not conform to the 10th Circuit Court decision regarding conservation use. *Public Lands Council v. Babbitt*, 929 F.Supp. 1436(D. Wyo. 1996), rev'd in part and aff'd in part, 167 F.3d 1287 (10th Cir. 1999), aff'd, 529 U.S. 728 (2000).

The BLM would continue to use an interdisciplinary team approach to identify and analyze the effects of proposed

actions and alternatives on the human environment. Critical elements of the human environment identified in NEPA would be addressed in all environmental assessments or environmental impact statements. If a critical element is not affected, a statement of no effect would be included in the NEPA document. Critical elements include air quality, areas of environmental concern, cultural resources, farm lands both prime and unique, floodplains, Native American religious concerns, threatened or endangered species, hazardous or solid wastes, drinking and groundwater quality, wetland or riparian zones, wild and scenic rivers, and wilderness. If there is no effect on an element not on the critical element list, such as social, economic, and cultural considerations, then the NEPA document would generally be silent on that particular issue.

Changes in grazing use, either a suspension or an increase of permitted use, would continue to be authorized within the existing regulations. 43 CFR §4110.3 et seq. (2003). The level of change would be established through a grazing decision or a documented agreement with the permittee or lessee. 43 CFR §4110.3-3(a). The timeframe for implementing a change in grazing use would be determined on a case-by-case basis, and the BLM would use the grazing decision or agreement to establish the timeline for the change.

Title to new, permanent rangeland improvements developed under Cooperative Range Improvement Agreements (CRIAs) would be maintained solely in the name of the United States. 43 CFR §4120.3-2 (b) (2003). Range improvements developed before 1995 that are jointly titled between permittees or lessees and the United States would continue to be jointly titled. The number of rangeland improvements being developed on an annual basis has decreased by 38% since 1995, when regulations were changed to require that title to cooperative range improvements would be solely in the United States, rather than shared with a cooperator (see Table 3.4.3.1, DEIS). The decrease in the number of range improvements is attributable to a number of factors; including decreasing availability of public funds and shifting BLM work priorities. The 1995 change in the CRIA title provisions may also have been a factor in the decrease. It is projected that there would be approximately 1,200 new rangeland improvement projects developed each year over the next 5 years.

The present regulations do not contain language specifically requiring cooperation with State, Tribal, county, or local government-established grazing boards. However, the regulations do include a general requirement that the BLM cooperate with state, county, and Federal agencies in the administration of laws and regulations relating to livestock, livestock diseases, sanitation, and noxious weeds. Many BLM field offices would continue to cooperate and coordinate with local government-established grazing boards based on this general provision; however, the level of cooperation would be variable, depending on the individual field office.

Permittees or lessees could apply for, and the BLM could approve, temporary nonuse for as long as 3 consecutive years. After the 3-year period has elapsed, the permittee would be required to make full use of the grazing permit or lease. If the BLM determines that additional nonuse would benefit achieving resource objectives, then the authorized officer would issue a grazing decision or enter into an agreement with the permittee or lessee to suspend the permitted use in whole or part. However, this presents a possible deterrence from a permittee's or lessee's standpoint for requesting nonuse and

detracts from cooperative management. In addition, the grazing decision or agreement process would create additional workload on the grazing administration and a delayed timeframe for addressing needed changes to grazing management.

The assessment and evaluation of standards of rangeland health would continue in accordance with the present regulations. 43 CFR §4180 et seq. (2003). A determination of achievement (or non-achievement) and identification of significant causal factors for non-achievement would continue to be based on available inventory, monitoring, or assessment data and information. Determinations would continue to be made using assessment information where monitoring data are not available. The credibility of determinations made solely on the basis of assessment information would continue to be challenged through administrative or judicial processes on some allotments and watersheds. The BLM would continue to invest time responding to these administrative and legal challenges at the expense of other responsibilities.

The timeframe for taking appropriate action when existing grazing management is determined to be a significant factor in failing to achieve rangeland health standards and conform with guidelines is no later than the start of the next grazing year. 43 CFR §4180.2 (c). This timeframe can create severe limits on effective communication, cooperation, and consultation with Federal, State, and local governments; Tribes, permittees, and interested publics; for conducting Endangered Species Act (ESA) consultation; and developing appropriate alternatives for NEPA analysis. Because of this, decisions to change grazing use to achieve standards of rangeland health are often subject to appeals and litigation, which results in labor and dollars being diverted to a hearings process rather than developing and implementing a workable plan in the first place. At the end of fiscal year 2002, about 5% of grazing decisions (or about 450) had been appealed. Under this restricted timeframe, some grazing decisions have produced management actions that are impractical or difficult to implement and have damaged working relationships with permittees and lessees. If a common allotment with several permittees or lessees fails to meet a standard, and numerous public land users wish to participate in the formulation of management actions, the timeframe for reaching consensus may be lengthy. In these instances it is very difficult to develop and implement appropriate action before the next grazing year. These challenges create significant costs to the BLM, causing diversion of resources from other high-priority tasks.

In accordance with *Public Lands Council v. Babbitt*, conservation use would not be authorized. 167 F.3d 1287. Language in the existing rule is inconsistent with this ruling.

Grazing preference would continue to refer to the superior or priority position against others for the purpose of receiving a grazing permit or lease and would not include the total number of animal unit months (AUMs) on public land apportioned and attached to the base property. Permitted use would remain defined as the forage (expressed as AUMs) allocated under the guidance of a land use plan, with active use continuing to be the present authorized use. These definitions have and continue to cause confusion and inconsistent use of terminology.

The interested publics would be required to inform the authorized officer in writing that they wish to be involved in the decision-making process for management of livestock grazing on an allotment. When an interested public has completed the notification process, the BLM would include that entity on the

mailing list of interested publics. This inclusion would be for an indefinite period of time and the entity would be maintained on the mailing list and provided with documents and invitations to participate until he or she requested that his or her name be removed. This could result in additional administrative costs for maintaining the mailing list and for sending out mailings, regardless of the involvement by the interested publics in the consultation process.

The BLM would notify all interested publics on the mailing list of any proposed actions that require consultation, cooperation, and coordination. The interested public may decline to be involved in developing a plan for an action or activity requiring a decision. After a decision is issued, the party still has standing to appeal the decision, even though they declined to be involved in the development of the proposed action. The lack of involvement early in the process would increase the administrative costs of providing materials when it is not desired, and of responding to appeals by those who decline to be involved in development processes.

The BLM would continue to consult, cooperate, and coordinate or seek review from the interested publics on actions that relate to day-to-day business activities such as designating and adjusting allotment boundaries; increasing active use; implementing reductions in permitted active use; emergency closures or modifications to grazing use; reissuing grazing permits or leases; modifying permits or leases; and issuing temporary, nonrenewable grazing permits or leases. This requirement could affect the BLM's ability to make timely decisions, such as reduction of use or emergency closure decisions for protection of resources.

The BLM would continue to consult, cooperate, and coordinate or seek review from the interested publics on actions that relate to activities that are not within the day-to-day operations of the BLM. These actions would include apportioning additional forage, developing or modifying grazing activity plans, planning the range development or improvement program, and reviewing grazing evaluation reports.

To the extent allowed by the law of the State in which public land is located, stock water rights acquired for the purpose of livestock watering on public land would be acquired and maintained in the name of the United States. When the United States acquires the water right under these circumstances in an allotment used by a number of permittees, or in an allotment with a new permittee resulting from a transfer of preference, the BLM would manage the water right on behalf of the current and future permittee or permittees rather than have the water right controlled by a third party.

The present definition of "satisfactory performance" would remain in the negative form, referring to "what is not satisfactory performance" rather than "what is satisfactory performance." Retaining the negative statement form would have a minimal effect on grazing administration.

Changes in permitted use could be authorized by the BLM as long as the changes are maintained within the terms and conditions of the permit. The regulations contain no text regarding what is meant for "within the terms and conditions of the permit." Therefore, the approval of the applications would be subject to definition by the authorized officer. This would create the potential for inconsistent application within the grazing administration program.

The present regulation provides that the BLM may calculate service charges reflecting processing costs, and may adjust the charges as costs change. The BLM presently assesses a $10 service charge for crossing permits, transfers of preference, and replacement or

supplemental billings that are not initiated by the authorized officer. The BLM would not recover processing costs based on the existing service charges. It is projected that the service charge would remain indefinitely at $10 under the No Action Alternative. Available data indicate no improvement in cost recovery if the existing service charges were continued (Table 4.2.13.1).

All three sets of prohibited acts would be maintained within the grazing regulations. The first and second set of prohibited acts would be utilized by the BLM in the administration of grazing allotments. The third set, regarding prohibited acts related to violations of Federal or State laws or regulations, would also be maintained, but as judged by the historical trend, this set would infrequently be used for administration of grazing permits.

The appeal process would continue as outlined within the present regulations. A proposed grazing decision would be issued, and in the absence of a protest or comments, the proposed grazing decision would become the final grazing decision. If an appeal is filed on a decision to modify or renew a grazing permit or lease, and a stay is requested and granted, then the grazing activity would continue at the previous year's level of authorized grazing use pending resolution of the appeal. If the permittee or lessee is an applicant who did not have authorized use the previous year, including a grazing preference transferee, then the grazing activity would be authorized according to the final decision.

If a stay is not requested, or is requested and not granted, then the final decision would be implemented pending resolution of the appeal.

In a 1998 decision, the Interior Board of Land Appeals (IBLA) ruled that the BLM was to treat biological assessments as decisions for the purposes of protest and appeal. This requirement to treat all biological assessments related to grazing actions as grazing decisions would lengthen the consultation process under the ESA and would delay making implementation of grazing decisions, including changes in grazing management practices which may be required to achieve rangeland health standards.

4.2.2 Vegetation

The vegetation communities on the public lands would continue to change over the next 20 years. Wildfire, prescribed burning, and precipitation patterns would continue to be major factors influencing vegetation community composition. Vegetation cover would be expected to slowly increase.

Vegetation communities that are dominated by invasive species are not expected to improve except where the BLM has land treatment or weed control programs.

The BLM would continue to evaluate the conditions of the public lands with respect to the fundamentals of rangeland health and the standards and guidelines for grazing administration. 43 CFR §4180 et seq. (2003). Appropriate action would be taken as soon as practicable, but not later than the start of the next grazing season, where the BLM determines that existing grazing management practices or levels of grazing use are significant factors in failing to achieve the standards and conform with the guidelines. 43 CFR §4180.2 (c). The short timeframe for developing and implementing appropriate action has resulted in, and would continue to result in, analysis and deliberation that is occasionally insufficient, leading to expedient rather than effective decisions (see section 4.2.1, FEIS). This could be evident in situations where adequate time was not provided to formulate a comprehensive plan for addressing the vegetative concerns.

The BLM would continue to make determinations that existing grazing management practices or levels of grazing use are significant factors in failing to achieve the standards and conform with the guidelines without any regulatory requirements as to the type of data which may be utilized as the basis for such determinations. Consequently, subsequent "appropriate" actions may be based upon insufficient data, or data which only reflects conditions at a single point in time. Therefore, "appropriate" actions may not be the actions which will best improve the condition and health of the vegetation.

4.2.2.1 Riparian and Wetland Vegetation

Present trends in riparian condition and restoration are discussed in Section 3.5.2 of this FEIS. Although the apparent trend in riparian condition at the national level is positive, long-term trends are not yet clear, as judged by data from 1998 to 2001. Recent success in applying grazing management to achieve riparian improvement objectives has been documented and almost always involves cooperation with the livestock operator. Under present regulations, overall riparian conditions would remain static or improve from present conditions in most locations over the long term. Some regions would show noticeable improvements in riparian conditions, while other regions would show little change. Assuming the trend in riparian conditions observed from 1998 to 2001 is representative, improvement of riparian areas classified as "properly functioning" would continue to occur at a rate of 1.5% annually. If improvements in "functioning at risk- trend upward" were included, the rate of improvement would be 3.5% per year.

Improvements in riparian and aquatic habitat would result from the continuing implementation of rangeland health standards and grazing guidelines. Where changes in management are necessary, they are expected to include combinations of segregation of riparian pastures from uplands, changes to the season of livestock use, changes in the duration (or amount) of use, changes in the overall amounts of use in riparian pastures, and livestock exclusion at some sites.

The present regulations establish a framework within which individual management plans for riparian areas are developed through close coordination with permittees or lessees and interested publics. Frequently, time and energy are diverted into routine administration issues rather than addressing long-term management direction.

Management changes prescribed for riparian restoration most often rely on changes in the timing, duration, and season of use. Present regulations allow flexibility in the rate of implementation of new management strategies.

The 3-consecutive-year limit for nonuse would continue to limit cooperative options with the operator that benefit riparian and aquatic resources. The BLM could continue to address longer periods of rest, by decision or agreement, but temporary nonuse beyond 3 years would not be available.

The present regulations offer the ability to make a determination that existing livestock grazing management practices or levels of grazing use are significant factors in failing to achieve standards of rangeland health or conform to guidelines without utilizing assessment information or monitoring data. 43 CFR §4180.2 (c) (2003). While this feature allows flexibility to rank the importance of monitoring expenditures, it does not set a minimum standard for decision making. The absence of the monitoring data requirement can lead to quicker decisions. However, the risk is that the quality of decisions may be

affected, and inappropriate or unnecessary management may be applied.

Riparian vegetation would benefit from quick decisions and management responses where the strategies applied are effective. However, present regulations don't always provide a timeframe that allows for adequate coordination, consultation, and cooperation to fully analyze and develop multiple management alternatives, as well as complete required administrative processes.

4.2.3 Fire and Fuels

Overall, the present grazing regulations have a minimal affect on the ability to reach a more historic fire regime.

The existing grazing regulations provide the necessary tools to allow the resting of pastures from livestock use so that vegetation manipulation treatments can be conducted on the public lands. 43 CFR §§4110.3-2 (a), 4130.3-2 (f). Provisions are available to negotiate with affected permittees or lessees and to provide the necessary rest following treatment to allow rehabilitation objectives to be met. Id.(see also Emergency Fire Rehabilitation, H-1742-1).

The limiting factors for conducting treatments would be tied more closely to funding levels, the ability of the permittee or lessee to be able to withstand the resting of a pasture or allotment from livestock grazing, and legal challenges to vegetation manipulation decisions.

Interested public participation could lead to delays in implementation of treatments.

4.2.4 Soils

4.2.4.1 Upland Soils

Short-term environmental consequences of present regulations are minimal except on a local scale. Natural disturbance regimes such as wildfire or high- intensity rainfall potentially adversely affect local upland watershed conditions by increasing erosion, sedimentation, and runoff. Restoration projects such as prescribed burning and seeding potentially benefit local conditions by improving watershed cover. Climatic events, such as drought, have greater short-term effects on upland watershed conditions than present management in the analysis area.

Long-term environmental consequences of present management are maintenance or a slow improvement of upland soil and watershed conditions due to implementation of rangeland health standards and guidelines and restoration efforts. These beneficial effects derive from improved vegetation and plant litter that provides watershed cover and decreases soil compaction. This results in reduced erosion, sedimentation, and runoff; healing of gullies; greater soil water availability for plants; improved soil aeration; improved biological soil crust cover; and greater soil macro- and microorganism activity. The beneficial impacts would be most pronounced in the higher elevation, moister portions of the analysis area. Beneficial impacts would be slowest and most difficult to achieve in the drier portions of the Tropical-Subtropical and Temperate Desert divisions.

The adverse effect of a long-term drought could partly limit the enhancement of upland soil and watershed conditions depending on the severity of the drought. The increased acreage of rangeland ecosystems dominated by exotic annual grasses and noxious weeds would result in reduction or alteration of important components of the soil biological community on affected acres, which would make restoration more difficult. Long-term erosion, sedimentation, and runoff would also be increased on acreage dominated by exotic annual grasses because of increased wildfire risk and reduced plant cover during severe drought years. Cheatgrass die-off has

occurred on more than two hundred thousand acres in Nevada in 2003, leaving these sites exposed to severely accelerated erosion and loss of long-term sustainability. The cause and long-term implications of this die-off are unknown.

4.2.4.2 Riparian Soils

Short- and long-term environmental consequences of the present regulations are similar to those of upland soils except that the high moisture content of riparian soils could accelerate responses to improved management practices. Improved riparian area management would help stabilize lotic and lentic riparian areas where the water or sediment supplies are out of balance and promote the growth of deep-rooted, riparian vegetation that helps dissipate stream energ y, armors streambanks, and filters sediment from the stream. Displacement of desirable, deep-rooted riparian vegetation by invasive, exotic riparian plants would potentially reduce streambank protection and reduce groundwater available for maintenance of healthy riparian conditions on invaded acreage.

4.2.5 Water Resources

Water quality will remain highly variable, remaining static or improving slightly, with improvement in vegetative cover on uplands. Nonpoint source pollutants generated by livestock grazing, including sediment yields and other pollutants (bacteria, salinity, and nutrients), would slightly decline. Nonpoint source salinity in the Colorado River basin would decline less than in other desert shrub communities, because of the slow vegetative response to management.

In the short term, climatic variation would have more effect on upland watershed conditions than would present management. Cover, runoff, and accelerated erosion would only slightly change, and the upland watershed conditions would not improve in the short term.

In the long term, improved upland watershed condition would result from implementation of rangeland health standards and guidelines. 43 CFR §4180 et seq. Climate, soils, and livestock management strategies are key considerations in the implementation of management plans to improve upland watershed condition. Though tempered by site and climatic variability, gradual improvement to upland vegetation and ground cover may occur. Improvement in vegetative cover could, over time, improve the precipitation infiltration rates, reducing surface runoff and erosion.

Continued efforts to improve and maintain vegetative cover may move upland drainage networks toward proper functioning condition over an extended period of time. In the short term, the frequency and size of runoff events would not change. The overall hydrologic function of riparian stream systems would remain static or improve slowly. Soil erosion and sediment discharge caused by streambank trampling in riparian areas would remain static or decrease slightly over the long term. Thus, the beneficial hydrologic function of these riparian areas (floodplain storage and flood peak reduction, water quality maintenance, and groundwater recharge) would remain static or improve slowly.

4.2.6 Air Quality

Overall, air quality is expected to be within standards as the existing grazing regulations have maintained or improved the vegetative cover on the soils in the West.

The existing regulations require meeting rangeland health standards, which include protecting watershed function. 43 CFR §4180 et seq. (2003). Watershed function and rangeland health are related to the vegetative

resources that protect the watershed and cover the soil. Air quality on public lands is directly affected by the protection of soil by vegetation. Where soil is exposed, there is a possibility for air quality problems as a result of dust caused by wind over exposed soil. The standards for rangeland health help protect air quality by ensuring that vegetation is adequate to provide soil cover for proper watershed function, which in turn protects soil from wind erosion.

4.2.7 Wildlife

This environmental impact analysis focuses on how the proposed livestock grazing regulations changes may affect wildlife and the habitat they require on the more than 160 million acres of public lands grazed by domestic livestock in the western United States. Under Alternative One, the No Action Alternative, risks and benefits to wildlife and wildlife habitat are not expected to change.

Presently, rangeland standards and guidelines continue to be applied (43 CFR §4180 et seq. (2003)), phase-in of increases or decreases in active use is optional (§4110.3 et seq.), rangeland health assessments may be made with or without monitoring data (§4180.2 (c)), and applications for nonuse could not be approved beyond 3 years (§4130.2 (g) (2)).

The BLM may impose civil penalties against a permittee or lessee after the individual has been convicted or otherwise found to be in violation of certain Federal or State laws or regulations, if the act which constitutes the violation involves or affects BLM public land and the violation is related to grazing use authorized by the BLM.. 43 CFR §4140.1(c) (2003). This provision may have some beneficial effect on wildlife by discouraging grazing permittees from violating these laws. However, this section of the regulation is rarely applicable.

The time presently allowed for taking appropriate action under the rangeland health standards may be too short to allow proper coordination for implementing sound, sustainable decisions. 43 CFR §4180.2 (c) (2003). Therefore, actions that would help improve upland and riparian wildlife habitat are sometimes delayed either by the implementation of unsound decisions or by litigation. However, there are also times that wildlife species may benefit from the discretionary rapid implementation of changes in grazing use that BLM managers can presently implement.

4.2.8 Special Status Species

This environmental impact analysis focuses on how the proposed livestock grazing regulatory changes may affect special status species and the habitat they require on the more than 160 million acres of public lands grazed by domestic livestock in the western United States. Under Alternative One, the No Action Alternative, risks and benefits to special status species and their habitats are not expected to change and are the same effects as for wildlife (section 4.2.7, FEIS).

4.2.9 Wild Horses and Burros

This environmental impact analysis focuses on existing regulations for livestock grazing as they affect wild horse and burro populations and their herd management areas on the 34 million acres grazed by both domestic livestock and wild horses and burros in the western United States. Under the present regulations, there would be little change in wild horse and burro populations on public lands.

4.2.10 Recreation

Many recreational activities are enhanced or diminished by the natural condition of

the lands on which they are located. Under the present management on the majority of public lands, recreational experiences would be maintained or, where land health standards are not yet attained, improved as upland and riparian conditions improve through actions taken to attain rangeland health standards. Effects to public lands under existing management would continue to be greatest in higher and moister areas where grazing use is greatest, and least in the driest areas that improve at slower rates.

As vegetation cover increases, recreation uses—including sightseeing, wildlife watching, and enjoyment of naturalness—are maintained or improved. Many dispersed recreational activities would be expected to improve as the vegetation condition in which they are set improves.

Fishing and hunting opportunities and success rates would be expected to improve or diminish as range health improves or diminishes. Many recreational activities, although not directly focused on pursuits such as sightseeing or enjoyment of naturalness, benefit from aesthetic land qualities that form the background for the overall experience. The experience enjoyed by more highly developed recreational activities (such as use of off highway vehicles [OHVs] or developed campsites) experience no, or minimal effects under existing management. Both commercial and noncommercial activities would be similarly affected. Revenues from types of commercial recreation that rely on healthy ecosystems could be increased or decreased as range health improves or deteriorates. Revenues from some commercial recreation activities (for example, races) would generally be unaffected by rangeland health.

4.2.11 Special Areas

The existing grazing regulations mostly allow for the protection of special area values from inappropriate livestock grazing use. However, in application, delays to the implementation of actions for improving conditions in special areas could occur as a result of the lack of time to ensure good, sustainable decisions that would result in long-term improvement in rangeland health. Requiring changes in livestock grazing use by the start of the next grazing season would not allow sufficient time to coordinate with permittees or lessees and interested publics. As a result, the decisions could be less comprehensive and effective. This is deemed a minor effect in most special areas, as significant livestock grazing issues are not typical. Other key elements of the existing regulations would not have significant effects on special areas.

4.2.12 Heritage Resources: Paleontological and Cultural Resources (Properties)

Overall, the local and regional effects from the present regulations upon heritage resources are minimal. Review of a Federal undertaking by a cultural resource specialist is required during specific project planning or implementation at the local level, land use planning initiatives at the State or regional level, or for regulation revision at the national level.

Of the present regulations, the timeframe for taking action to meet rangeland health standards could have the potential to affect on-the-ground actions, which consequently can affect heritage resources. Under the present regulations, a very short timeframe is specified for implementing appropriate action when livestock grazing has been determined to be a significant factor in not achieving standards or conforming to guidelines for grazing administration. This timeframe may not be sufficient for completing adequate cultural resource

surveys and, if necessary, developing mitigation or protection strategies in compliance with legal mandates. Additionally, the timeframe is not sufficient to complete adequate Tribal consultation and coordination on projects or planning efforts as mandated in several laws, regulations and executive orders.

New project developments have been and will continue to be analyzed for effects on heritage resources on a case-by-case basis. Cultural resource surveys precede management actions that could damage cultural resources (BLM Manual 8100, Cultural Resource Management). Historic and prehistoric archaeological sites found during these surveys would be protected in accordance with the National Historic Preservation Act of 1966 (revised) and other laws or executive orders as stated in the Code of Federal Regulations (36 CFR §800). Additionally, Tribal consultation would begin in any case where it appears likely that the nature and/or location of the activity could affect Native American interests or concerns.

The present regulations allow grazing permits to be canceled following a conviction of a violation of a law or regulation related to the "illegal removal or destruction of archaeological or cultural resources." This clause, which has never been used, could give protection to fragile and nonrenewable resources that may be important to regional and national heritage.

4.2.13 Economic Conditions

Overall, the local and regional economic effects of the No Action Alternative would be minor. Effects would come primarily from the continuation of some effects that may be ongoing, such as:

1. lower management flexibility for permittees and the BLM,
2. potential lack of incentive for permittees to participate in range improvements,
3. potential economic effects on permittees due to the time constraints associated with making rangeland health determinations and implementing grazing decisions, and
4. continued lack of cost recovery for BLM for undertaking specific actions.

The following are the primary source of potential ongoing effects, although none of the provisions, either individually or cumulatively, is considered noteworthy:

- The present regulations do not specify a phase-in period for changes in active use. Consequently, changes in use (primarily reductions) greater than 10 percent can be implemented immediately, which may have an adverse effect on permittees in that they would have little time to make alternative arrangements. However, there are no restrictions on phasing in changes in use, so grazing decisions can now, at the discretion of the decision maker, be phased in over a period of time.
- Statistics on range improvements and range improvement funding show there was a decline in numbers of projects, starting in 1996, after implementation of the 1995 regulations, and that over the past few years there has been somewhat of an increase, although this fluctuates annually. However, the statistics also show that there has been an overall decline in the annual number of range improvements since the 1980s. Consequently, it isn't clear how extensive the effect of the 1995 regulations on range improvement ownership has been.

- Maintaining the 3-consecutive-year limit on nonuse may pose a hardship for permittees who may otherwise want or need to take nonuse for longer periods, either for resource-related or financial reasons. If a longer period of nonuse were to create improved rangeland conditions, then the 3-year limitation may forestall longer term economic benefits that could result from improved conditions.

- The BLM would retain flexibility in the methods it could use to make rangeland health determinations. However, once a determination is made that existing grazing management needs to be modified; the BLM is required to take action no later than the start of the next grazing year, which has put a strain on the agency's resources and has limited BLM's flexibility in managing workloads. For permittees, this relatively compressed timeframe could adversely affect their operations if potential changes in use are made more quickly than permittees could efficiently alter their operations. However, the requirement to take action before the start of the next grazing season could have a beneficial effect on long-term productivity if rangeland resources begin recovery sooner rather than later.

- Service charges do not presently cover the costs incurred by the BLM (and, consequently, the public) so there would be a continued lack of cost recovery. Table 4.2.13.1 shows net cost recovery for grazing permit transfers, crossing permits, and supplemental grazing bills. Maintaining the present service charges would be beneficial for permittees.

4.2.14 Social Conditions

Under the present management, ranches would continue to face a difficult social climate. Drought, livestock price fluctuations, rising costs, and other factors will continue to make ranching an economic challenge. The number of smaller or "hobby" operators will remain stable. Outside sources of income will, to a certain extent, buffer them from many of the ranch economic forces, but their numbers are constrained by the limited availability of small allotments. Other operators more dependent on the ranch for family income will be directly subjected to economic and social stress associated with public land ranching. Many feel strongly about passing the ranch on to children, but this is increasingly difficult. The levels of personal and family stress associated with uncertainty stemming directly from public land grazing management will continue to grow, though slowly.

The tenure of ranching will continue to change as well. Ranches change hands for a variety of reasons. Consolidation of commercially viable ranches will continue

Table 4.2.13.1. Cost recovery under current service charges.

Action	Current Service Charge	Average Unit Cost to Complete Action	Net Cost Recovery
Transfer Grazing Preference	$10	$2,255	–$2,245
Crossing Permit	$10	$339	–$329
Supplemental Grazing Billing	$10	$339	–$329

Source: BLM *Management Information System 2003* (BLM 2003).

as the herd size necessary for retaining a family ranch continues to rise. In most areas, this will contribute to a decline in the number of commercial ranches, and operations will grow larger. The other ranch tenure issue concerns the nature of the new owners. Many ranches are being purchased for amenity reasons or subdivision. This trend is frequently related to difficulty in passing on a ranch to children. In other situations it is simply an expression of economic reality. In either situation, potential (though not certain) social effects include the removal of ranchers from local social networks, changes to social integration processes, a diminished role for ranchers in the local power structure and a potential loss of open space to subdivision.

Population change in ranching communities will continue. Much of the change is growth, while some communities are experiencing losses in certain populations and gains in others. An example would be losses to mining jobs where miners move out and retirees move into the community. While the economic importance of ranching overall will continue to decline, it will maintain important social dimensions. Ranchers buy inputs no matter how their industry is fairing. This provides a stable underpinning to some economic sectors such as fuel and groceries. The contribution may be small relative to the nonranching population, but it fluctuates little. This produces a belief on the part of ranchers and some local businesses that ranching provides a certain level of local economic stability. This is frequently cited as a good reason to keep ranchers in business.

A similar relation holds for social organization of communities. Ranchers will continue to have a high profile in their communities. Many community members view ranchers as a social constant in a growing community. As communities become more differentiated, ranchers fill a commonly held social role as reminders of the rural life newcomers and locals seek to retain. Ranchers will continue to receive some of the benefits from community stratification, but those relations will change as population growth brings a different universe of economic relations to the community. Extra-local ties will continue to grow along with population. Finally, community integration will still rely on long-standing social networks in which ranchers play a prominent role. These networks are competing with a growing set of networks that are tied to larger social contexts outside of the community.

Recreation will continue to play a large and growing role in public land management from both individuals and organized groups. People remain in and migrate to both urban and rural areas of the West to enjoy the proximity of extensive recreation opportunities. They will retain strong attitudes about public land management for recreation and will continue to be readily involved in the management process as it pertains to grazing and other issues. Urban and rural growth throughout the region will supply more people each year with a wide variety of recreational interests. These interests will often clash among recreation groups. Primary conflicts will continue to revolve around the role of motorized vehicles on public lands, designation of special management areas that foster certain recreational activities and prohibit others, and the management of areas for recreational values instead of livestock. The primary concern of all recreation groups will continue to be access to public lands throughout the year for a wide variety of uses.

Under present management, conservation and environmental groups play a role in public land management that ranges from community-based conservation efforts to litigation. These efforts will continue.

Many locally based groups are pursuing cooperative management strategies for grazing areas deemed to be important for their values, in addition to livestock forage. Such efforts continue to require much more time and resources than traditional organizing efforts for such groups. Local communities and ranchers will continue to have mixed opinions about such efforts, even as successful efforts outline how to best approach such situations. In addition, groups that started out as "local" are expanding and opening offices in other areas and States. This growth will increase the "watch-dog" orientation of these groups. Most such groups include educated participants who are generally opposed to public land grazing and will continue to provide a sharp challenge to management decisions concerning grazing.

4.2.15 Environmental Justice

Environmental justice is defined as the "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of Federal, state, local, and Tribal programs and policies" (BLM 2002a).

Describing the baseline situation from an environmental justice perspective involves demarcating the potentially affected area and identifying the low-income, minority, and Tribal populations within that area. In a programmatic EIS of national scope, this is not feasible.

In the context of regulations governing grazing on public lands, environmental justice implications—if any—are likely to be driven by social and economic effects. For the No Action Alternative, the analyses of social and economic effects do not suggest any basis for identifying disproportionate effects on low-income, minority, or Tribal populations.

4.3 Alternative Two: Proposed Action

The direct and indirect effects on the human environment of implementing the proposed regulatory amendments as described in Section 2.2 are presented in this section.

4.3.1 Grazing Administration

Overall, the amendments to the regulations are anticipated to improve the efficiency and effectiveness of several of the grazing administration processes. The proposed regulations would assist BLM in accomplishing its multiple use mission in a manner that works well in the social and economic environment of affected communities. The amendments to the grazing regulations would highlight practical ways for permittees, lessees, affected State and local officials, Tribes and the interested public to engage with BLM as partners to improve watersheds, and habitat conditions. The amendments would improve cooperation with directly affected permittees and landowners; promote utilization of monitoring data for decisions regarding protection of rangelands; and enhance administrative efficiency and effectiveness, including addressing legal issues that need clarification.

Although efficiency and effectiveness should improve for all allotments, three amended provisions may delay administrative actions on a relatively small number of

allotments. These three provisions address implementation of changes in grazing use, the basis for rangeland health determinations, and the timeframe for taking action to meet rangeland health standards. The second and third provisions would only delay actions on those allotments for which BLM determines that existing grazing management practices or levels of grazing use are significant factors in failing to achieve the standards for rangeland health and conform with the guidelines. The majority of actions taken under the first provision are expected to be in the same category. Therefore, quantification of the potential effects of these provisions is directly related to the number of allotments that will fail to meet standards where livestock grazing is a significant factor in the future. It is estimated that a small number of allotments would be affected; based on the results of evaluations of 58 million acres.

At the close of fiscal year 2002, the BLM had evaluated 7,437 allotments comprising 58,711,307 acres of public land for conformance to rangeland health standards (BLM 2002). This represents 35 percent of all allotments and 36 percent of the BLM-administered land contained in allotments. The BLM determined that 1,213 (16 percent) of the allotments evaluated failed to meet the standards and guidelines for rangeland health due to existing livestock grazing practices or levels of grazing use. These evaluations focused on high priority allotments, which BLM policy illustrates as follows: "In setting priorities for land health assessments and evaluations, areas with land health issues take precedence" and "Assign high priority to areas believed to be at risk—in degraded condition or downward trend and in danger of losing capability"(BLM 2001).

Therefore, the past 5 years of assessment and evaluation experience indicates that at most approximately16 percent of allotments evaluated in the future may fail to meet standards due to current livestock grazing practices. It is likely the percentage may be even less considering the allotments already evaluated should have been those in the most degraded condition or obviously in downward trend. This analysis provides a basis upon which to estimate the number of allotments which may be affected by the specific changes in the regulations.

Social, Economic, and Cultural Considerations in the Decision-Making Process: This regulatory change is expected to result in greater consistency in the analysis of impacts to the social, economic and cultural elements considered in a NEPA document. Documenting consideration of impacts of proposed changes to grazing preference on relevant social, economic and cultural factors would make decisions or agreements resulting from NEPA analysis more sustainable. Clearly documenting consideration of these factors in addition to those required critical elements in NEPA would improve communication and cooperation with permittees or lessees. This would result in a higher likelihood of permittees or lessees participating in grazing management planning and implementation. Additionally, it can be anticipated that decisions or agreements that implement changes in grazing preference would be more comprehensive; thus more likely to be realistic, practical, and achievable.

Implementation of Changes in Grazing Use: A change in active use, either an increase or a decrease, would be accomplished through the grazing decision process or a documented agreement with the permittee or lessee. If the change is greater than 10 percent of the total active use, implementing the change would occur over a five year period unless a shorter time period is negotiated by agreement with the permittee or lessee. Typically, adjustments would be implemented during the first, third

and fifth years. During this time, additional monitoring and assessments could be conducted to determine if changes in active use are resulting in a movement towards achieving rangeland standards or land use plan objectives. This phase-in period allows the permittee or lessee greater opportunity to make economic and management adjustments to his operation in order to lessen any adverse impacts. This often results in improved cooperative relations and management between BLM and the permittee or lessee. The total number of allotments affected by this provision would be small because only 16 percent of the allotments evaluated during the last 5 years needed adjustments in current livestock grazing management. Since most of the changes are not reductions of 10 percent or more, the proportion of allotments affected by this provision would be much lower than 16 percent.

The 5-year timeframe would not be followed in cases where the permittee or lessee agrees to a shorter timeframe, or a shorter timeframe is required in order to comply with applicable law (i.e., Endangered Species Act). If a change in active use of greater than 10 percent is determined to be required, but it is also determined that soil, vegetation, or other resources require immediate protection, or continued grazing use poses an imminent likelihood of significant resource damage, then the change, including total or partial closure from grazing, could occur with the issuance of a final decision that could be implemented immediately (43 CFR §4110.3-3(b)).

A 5-year phase-in of changes to active use and the requirement to collect monitoring data to assess changes in resource conditions may result in an additional workload to the BLM. To accommodate the shift in workload associated with required monitoring, the BLM would need to find alternative means of collecting monitoring data and would reprioritize other tasks.

Range Improvement Ownership: Cooperative Agreements for new, permanent structural range improvements would reflect a shared title between the United States and the cooperators in proportion to their financial or labor contribution toward the project's development and construction. Title to existing range improvements that are held solely in the name of the United States would continue to be held solely in the name of the United States. Allowing the cooperators to hold title to structural range improvements in which they have an investment may stimulate an increase in private investments for the construction of range improvements.

Cooperation with State, Tribal, County, and Local Government-Established Grazing Boards: Adding the requirement to cooperate with State, Tribal, county, or local government-established grazing boards in reviewing range improvements and allotment management plans would ensure a consistent community-based decision-making process throughout the BLM. Field level range improvement and allotment planning programs would also benefit from the additional perspective that locally established grazing advisory boards could provide.

Temporary Nonuse: The present regulations limit the BLM's ability to extend temporary nonuse for more than 3 consecutive years; the proposed changes eliminate the 3-year limitation. The BLM would be able to annually approve temporary nonuse for conservation and protection of rangeland resources beyond the present 3-consecutive-year limit. There would be no limit on the number of consecutive years that nonuse could be approved. This is the simplest way to achieve temporary reduced use to respond to rangeland condition needs. In some instances, approval of an application

for temporary nonuse precludes the need for BLM to issue a decision to temporarily suspend use. Temporary nonuse can also be approved for the personal and business needs of permittees or lessees, which would allow them to better manage their businesses, such as livestock sales that result in temporary herd size reductions. There is no additional administrative workload associated with this proposed rule. The rule allows cooperation between the BLM and the permittee without requiring a separate administrative process to provide more than 3 consecutive years of temporary nonuse.

Basis for Rangeland Health Determinations: Under the regulation, determinations that existing grazing management practices or levels of grazing use are significant factors in failing to achieve standards and conform to guidelines would be based on the results of standards assessment and monitoring data. Although this is often done where existing monitoring data is available, this requirement would provide for a consistent approach to making such determinations. Acquiring and communicating the monitoring data and supporting rationale used to make a change in grazing management would result in improved cooperation and sustainable agreements or grazing decisions. The total number of allotments affected by this provision would be small because only 16 percent of the allotments evaluated during the last 5 years failed to achieve standards and conform to guidelines because of existing grazing management practices or levels of grazing use. This new requirement for using monitoring data and assessment information to make such determinations may increase the data collection workload within the grazing program. This workload increase would be addressed by reprioritizing work, finding alternative means to collect monitoring data or focusing on high priority areas at risk of not achieving land health standards because of existing livestock grazing.

Refocusing data collection priorities may impede the schedule states have established for completing watershed assessments. In addition, the monitoring requirement may delay the permit renewal process in areas where current monitoring data is not readily available. Under projected budgets, we expect to have appropriate monitoring data to support our determinations, regardless of whether they lead to a finding of failure to meet standards due to existing livestock grazing management.

Timeframe for Taking Action to Meet Rangeland Health Standards: The regulation recognizes the need for adequate time to formulate, propose, and analyze actions in an environment of consultation, cooperation and coordination. Providing up to 24 months (except in those cases where completing legal obligation that are beyond BLM's responsibility require additional time) to develop a proposal, complete any required ESA Section 7 consultation, complete the NEPA process, including preparation of a rational analysis of alternatives, would result in reasoned comprehensive and sustainable grazing decisions. We expect that extra time taken to develop a meaningful action would provide greater long term benefits to other resources and an overall improvement in rangeland condition. For example, just reducing the level of use in a riparian area, rather than developing a management system that considers timing of use, is not likely to improve the riparian area condition. Taking the additional time to develop an appropriate action may actually decrease the amount of time taken to implement a decision, particularly if the decision is not appealed. Under the rule, the BLM field manager has discretion as to whether to allow 24 months for BLM to address failure to meet rangeland

health standards. There is no language in the rule that precludes a shorter deadline, once BLM meets its consultation, cooperation, and coordination requirements.

Conservation Use: In accordance with Public Lands Council v. Babbitt, conservation use would be deleted from the regulations. Because BLM would not be issuing conservation use permits under any alternative, the deletion of these provisions would have no impact on BLM's grazing administration program.

Definitions of Preference, Permitted Use and Active Use: The new definition of grazing preference includes active use and use held in suspension. Grazing preference holders have a superior or priority position for the purpose of receiving a grazing permit and lease. Grazing preference includes livestock forage allocation on public lands and priority for receipt of that allocation, as determined through ownership or control of base property. Attaching or associating a public land forage allocation to or with base property provides a reliable and predictable way to connect ranch property transactions with the priority for use of the public land grazing privileges. This has been the basis for BLM's system of tracking who has priority for receipt of public land grazing privileges since the enactment of the Taylor Grazing Act. This change would ensure that the term "preference" is used consistently.

Definition and Role of the Interested Public: The interested public would continue to be required to inform the authorized officer that they wish to be involved with an allotment or make comments on an allotment in order to participate in the decision making process. However, if a member of the interested public is not responsive or declines to participate in consultation, cooperation and coordination opportunities, then they would be dropped from the list of interested publics and would no longer be notified of such opportunities. Former members of the interested public may regain status by written request or by submitting comments during formal public comment periods. This modification of the definition would result in some minor administrative cost savings associated with maintaining the interested public mail list and in mailing costs.

The specific actions requiring consultation, cooperation, and coordination or review and input from the interested public would be: (1) Apportioning additional forage; (2) Developing or modifying grazing activity plans (i.e., allotment management plans); (3) Planning range development or improvement programs; and (4) Reviewing/providing input on reports used as a basis for BLM decisions.

Day to day management activities that would no longer require the consultation, cooperation, and coordination with interested publics would be: (1) Designating and adjusting allotment boundaries; (2) Reducing permitted use; (3) Issuing emergency closures or modifications; (4) Renewing/issuing grazing permit or lease; (5) Modifying a permit/lease; and (6) Issuing temporary non-renewable grazing permits. The change does not prohibit BLM from including the interested public in these activities.

The clarity of the definition of the interested public and the reduction of actions that would require interested public involvement would enable the BLM to focus communication efforts on those interested publics who are involved in the significant issues occurring on grazing allotments. This narrowed focus would increase the efficiency of grazing management through the reduction of communication to individuals, groups, or organizations that are not providing input supporting the decision making process on an allotment. The regulation still requires that

proposed and final decisions are sent to the interested public.

The proposed regulations would require consultation with the interested public where such input would be of the greatest value, such as determining vegetation management objectives in an allotment management plan, or preparing reports evaluating range condition. This should allow the BLM to take responsive, timely, and efficient management action without being required to first undertake mandatory consultation. The proposed regulation would foster increased administrative efficiency by focusing the role of the interested public on planning decisions and reports that influence daily management, rather than on daily management decisions themselves. All proposed and final grazing decisions and associated NEPA documents, such as environmental assessments and reports that provide the basis for decisions, would still be available to the public under the rulemaking.

Water Rights: The proposed regulation would remove the requirement that new stock water rights be acquired, perfected, maintained and administered in the name of the United States in states where federal ownership of the water right is allowed. This does not mean that BLM will never apply for a state appropriative water right. BLM will apply for these rights of use on public land, in accordance with state laws, when such water rights ownership benefit public land management, and contribute to meeting the goals and objectives of BLM land use planning. However, the proposed amendment would give the BLM greater discretion to apply or not to apply for water rights in the name of the United States, or to apply jointly with the permittee on new water sources for livestock use. Since states assign water rights under different state laws, mandates, regulations, and policies, this rule would provide greater flexibility in negotiating arrangements, within the scope of state processes, for construction of watering facilities in states where the United States is allowed to hold a livestock water right.

Satisfactory Performance of Permittee or Lessee: Under the proposed regulations, BLM would limit the number of possible infractions that it would take into account for determining whether an applicant for a new permit has a satisfactory record of performance. Primarily, the proposed regulation changes the definition of "satisfactory performance" from a negative (what is not satisfactory performance) to a positive (what is satisfactory performance). Also, the provision is moved from the Mandatory Qualifications section to the Applications section. Implementing this change would have minimal impact on grazing administration.

Changes in Grazing Use Within the Terms and Conditions of the Permit: The action would provide additional detail on what is meant by the phrase "temporary changes in grazing use within the terms and conditions of the permit or lease." The proposed change to "temporary changes in grazing use within the terms and conditions of the permit or lease" defines the allowable variation in the number of livestock, period of use, or both that BLM may authorize in any one grazing year. This would provide sufficient flexibility to BLM managers and permittees or lessees to address seasonal and annual changes, thereby supporting efficient and responsive management of public lands. The new definition would clarify the amount of flexibility BLM authorized officers would have when considering temporary changes and help ensure consistent application across the BLM.

Service Charges: The changes in service charges will allow BLM to improve its recovery of costs associated with transferring grazing permits, processing applications for

crossing permits, and issuing supplemental grazing billings. Available data show that the costs of these actions exceed the relatively modest increases in service charges. (Table 4.2.13.1 and 4.3.13.1). The large negative cost recovery for transferring grazing preferences reflects the inclusion of costs for which recovery is not sought via service charges.

Prohibited Acts: In the first set of prohibited acts it is proposed to clarify the provision which prohibits the placement of supplemental feed on public lands without authorization by adding "or contrary to the terms and conditions of the permit or lease." This will clarify the intent of this section to ensure strict compliance with the terms and conditions of the permit or lease.

In the second set of prohibited acts it is proposed to clarify that a violation of any of the prohibited acts in that section must occur on BLM administered lands to be considered a violation. In addition, it is proposed in order to clarify the relationship between the document that authorizes grazing, the permit or lease, and the requirement to pay grazing fees. The intent is to clarify that the grazing permit or lease is the document that authorizes grazing use on public lands not the annual grazing fee bill. Also, the rule clarifies that grazing fees must be paid in a timely manner to avoid violating these regulations. Thus, this section provides, among other things, useful authority to encourage timely payment of grazing fees.

In the third set of prohibited acts it is proposed to clarify and limit BLM's enforcement authority by limiting its application to prohibited acts performed by a permittee or lessee on his allotment where he is authorized to graze under a BLM permit or lease. This change is intended to further ensure that the performance of the prohibited act is related to the permit or lease under which the violator is operating.

Grazing Use Pending Resolution of Appeals When Decision Has Been Stayed:

Decisions on ephemeral or annual rangeland grazing use and nonrenewable permits.

A new provision would be added at 43 CFR §4130.6-2(b) that provides authority to issue immediately effective decisions that issue a temporary nonrenewable grazing permit or lease (TNR), or that affect an application for grazing use on annual or designated ephemeral range. Decisions issued under this authority may be appealed and a stay of the decision may be sought, however the act of filing a notice of appeal and petition for a stay will not immediately stop the action. This provision allows agency decisions to authorize TNR, annual, or ephemeral range use to go into effect reasonably quickly, but allows the appellant to obtain a stay of such decisions upon demonstrating the likelihood of success on the merits of the petition and other requirements under 43 CFR §4.21(b)(1).

Decisions associated with changes to a term permit or lease or grazing preference transfers.

The provision at 43 CFR§4160.4 would be amended to clarify the effect of an administrative stay on a BLM grazing decision associated with (1) changes made to a term permit or lease, or (2) grazing preference transfers. The rule would clarify that BLM would continue to authorize grazing under prior terms when a stay is issued for a decision that (1) cancels or suspends a permit or lease, (2) changes the terms or conditions of a permit or lease during its current term, or (3) renews a permit or lease with changed terms or conditions. When a decision on a preference transferee's application is stayed, the BLM would issue a temporary permit that contains the same terms and conditions as the permit previously applicable to the area in question,

subject to any relevant provisions in the stay order itself. The permit would be in effect until the Office of Hearings and Appeals (OHA) resolves the administrative appeal. This change would increase administrative efficiency and ensure that decisions for which a stay has been granted are rendered inoperative pending resolution of an administrative appeal thus complying with the Administrative Procedure Act. This provision would ensure, in the event a BLM decision is stayed, the maintenance of status quo while the appeal is considered.

These provisions would improve BLM's ability to regulate the occupancy and use of rangelands, safeguard grazing privileges and provide for the orderly use, improvement, and development of the range.

Treatment of Biological Assessments and Evaluations in the Grazing Decision-Making Process: Biological evaluations prepared for purposes of ESA Section 7 consultation identify what actions an agency is considering, so that the U.S. Fish and Wildlife Service (FWS) or the National Oceanic and Atmospheric Agency (NOAA) Fisheries can determine how the agency actions may affect a listed species or habitat. The biological assessment is a tool that the FWS and NOAA Fisheries use to determine whether a proposed action is likely to adversely affect or jeopardize the existence of a species or adversely affect critical habitat. Neither document is a proposed grazing decision and, therefore, neither document may be protested to BLM or is a final grazing decision appealable to the Office of Hearings and Appeals under the proposed rule. If the formal consultation occurs and a biological opinion is issued which requires a change in the terms and conditions of a grazing permit or lease, then BLM will issue a grazing decision subject to protest and appeal. By providing that a biological assessment is not subject to protest and appeal, and through consultation with affected grazing permittees and lessees, FWS and NOAA Fisheries, BLM would be able to more efficiently and timely make changes in grazing management.

4.3.2 Vegetation

The proposed regulations are expected to help the BLM achieve vegetation resource management objectives. Improved cooperation with all interested parties is expected to lead to additional resources for public land improvements. Additionally, as BLM's administrative efficiency improves, the rate of achieving vegetation management objectives would accelerate.

The speed of achieving vegetation management objectives for specific sites would be governed by site-specific climatic conditions, management practices applied, and present state of the site.

Sites that are presently in stable-state vegetative communities are not expected to transition into another state as a result of changing grazing practices alone. Additional practices such as vegetation treatment would be required to achieve noteworthy changes in vegetation composition. These practices are much more likely to occur with the additional resources made available through partnerships.

While the overall long-term effect of the proposed regulations would accelerate achievement of public land vegetation objectives, there may be short-term adverse effects in allotments where vegetation is presently in a downward trend and vegetation recovery is delayed because of an extended implementation timeframe. However, as discussed in section 4.3.1 the amount of public lands potentially adversely affected is small. The following key elements of Chapter 2 have been specifically assessed:

Social, Economic, and Cultural Considerations in the Decision-Making Process: The regulations are expected to lead

to improved cooperation and coordination in making necessary adjustments in grazing management. Cooperative grazing management will result in more rapid achievement of management objectives.

Implementation of Changes in Grazing Use: The changes to the time provided for making changes in grazing use in excess of 10 percent are expected to lead to greater mutual understanding of vegetation goals and the mechanisms for achieving these goals.

Changes in active use of 10 percent or more, both increases and decreases, have been limited in recent years.

Where a reduction in grazing use is not urgent, a phased-in reduction over 5 years will not have substantially different effects than a shorter implementation period. The 5-year timeframe would not be followed in cases where the permittee or lessee agrees to a shorter timeframe, or a shorter timeframe is required in order to comply with applicable law (e.g., Endangered Species Act).Where resource damage is imminent and vegetation resources require immediate protection, the authorized officer may use authority under 43 CFR §4110.3-3(b) to make immediate adjustments in grazing use.

The total number of allotments affected by this change is expected to be small because only 16 percent of the allotments evaluated during the last 5 years needed adjustments in current livestock grazing management. The proportion of allotments affected by this provision will be much lower than 16 percent considering most of the changes to grazing management practices are not reductions of 10 percent or more.

Where BLM is proposing to increase the grazing levels, the 5-year period would allow for on-the-ground testing of the higher levels before full implementation. The BLM could monitor the adjustments each year and avoid increasing livestock grazing above the capacity of the public lands.

Range Improvement Ownership: This change would provide increased incentive for cooperator investment in range improvements, improving livestock grazing management designed to achieve land use plan and activity plan objectives.

Cooperation with State, Tribal, County, and Local Government-Established Grazing Boards: Improved communication and coordination with these boards would stimulate greater support for BLM resource management plans and activity plans. Vegetation management success may improve with the inclusion of local expert knowledge and experience in the planning process. Weed management and control can often be coordinated between BLM and private landowners through these boards, leading to more effective use of resources.

Temporary Nonuse: The regulations should increase the flexibility of both the permittee and the BLM manager to react to fluctuations in forage availability, climate, and economics, and may stimulate greater support for short-term adjustments in livestock grazing levels, resulting in greater alignment between forage production and utilization levels.

Basis for Rangeland Heath Determinations: The requirement to use standards assessment and monitoring data to support a determination that existing grazing management or levels of use are significant factors in the failure to meet standards or conform to guidelines would improve working relations with permittees and lessees because determinations on the causes of failure to meet a standard will be based on monitoring and assessment data, thus helping to ensure comprehensive and sustainable decisions. Over the last 5 years about 16 percent of the allotments evaluated failed to meet a standard because of existing grazing management. Based on this experience, as explained in section 4.3.1, it is reasonable

to project that this provision would require monitoring data to support determinations on a maximum of 16 percent of the future allotment evaluations. Since our assessments have been focused on high priority allotments with at-risk resources, the proportion of determinations requiring monitoring in the future is likely to be lower. This provision may create an additional workload and would require focusing monitoring on high priority allotments where BLM suspects existing grazing management inhibits achievement of standards, a management strategy which parallels existing policy.

Timeframe for Taking Action to Meet Rangeland Heath Standards: Extending the timeline for taking appropriate action, where present livestock grazing practices are the cause of a failure to meet standards for rangeland health, provides additional time for designing and implementing a more comprehensive plan. Developing a comprehensive grazing management plan has a greater probability of correctly addressing the vegetative concerns with a higher probability of success. This provision may result in short term adverse impacts to vegetation if it delays implementation of appropriate actions in allotments with a downward trend.

Definition of Grazing, Preference, Permitted Use, and Active Use: Changes in these definitions would provide greater consistency and understanding for grazing administration, but would have little effect on vegetation resources.

Definition and Role of the Interested Public: This adjustment should allow the BLM to make more timely decisions. Thus, it would have a beneficial effect on vegetation resources.

Water Rights: This provision would increase flexibility to negotiate better cooperative agreements, resulting in improved cooperation between BLM, States and permittees and lessees. This capability may stimulate greater permittee and lessee support for the development of additional water resources on public land. New water developments may assist in meeting BLM vegetation resource management plans and activity plans, contributing to an overall beneficial effect on vegetation resources.

Changes in Grazing Use Within Terms and Conditions of Permit or Lease: This provision provides for more consistent application of flexibility across BLM to make short-term adjustments in livestock grazing. Grazing use would be more closely aligned with fluctuations in forage production and range readiness and may result in a beneficial effect on vegetation resource conditions.

Treatment of Biological Assessments and Evaluations in the Grazing Decision-Making Process: This adjustment may accelerate the process of consultation, allowing more timely implementation of decisions. Threatened and endangered species would benefit directly from timely decisions and cooperative management.

4.3.2.1 Riparian and Wetland Vegetation

Under the proposed regulations, trends for riparian and wetland resources would improve with the implementation of some actions under consideration. Present trends in riparian condition and restoration are discussed in Section 3.5.2. While the apparent trend in riparian condition at the national level is positive, long-term trends are not yet clear on the basis of data from 1998 to 2001. Success in applying grazing management to achieve riparian improvement objectives has been documented and almost always involves cooperation with the livestock operator. The effects on riparian conditions that may occur as a result of

the regulations are improved cooperation resulting in sustainable management changes.

Under the proposed regulations, overall riparian conditions would remain static or improve slightly. Some areas would show noticeable improvements in riparian conditions, while other areas would change little. Assuming the trend in riparian conditions observed from 1998 to 2001 is representative, improvement of riparian areas classified as "properly functioning" would occur at a rate of 1.5 percent annually. If improvements in "functioning-at-risk with an upward trend" were included, the rate of improvement would be 3.5 percent per year. The regulations is expected to promote improvement at higher rates, with the range of 1.5 to 3.5 percent per year, based primarily on the additional emphasis on communication, consultation, and coordination.

Improvements in riparian and aquatic habitat would result from the continuing implementation of rangeland health standards and livestock grazing guidelines. Most changes in management are expected to include combinations of segregation of riparian pastures from uplands, changes to the season of livestock use, changes in duration of use (or amount of utilization), changes in the overall amounts of use in riparian pastures, and livestock exclusion at some sites.

Since individual management plans for riparian areas are developed through close coordination with permittees and interested publics, improvement in communication, consultation, and cooperation would promote more sustainable decisions. The regulations would change the focus of com munication, consultation, and cooperation efforts to emphasize those processes where long-term management direction is developed. While opportunities for consultation in these important processes are presently available, public dialogue, time, and energy are now frequently diverted into routine administration issues rather than addressing long-term management direction.

Implementation of Changes in Grazing Use: Since management changes prescribed for riparian restoration most often rely on changes in the timing, duration, and season of use, the rule change requiring a 5-year phase-in would not apply to most riparian management plans. Increasing grazing use in a phased-in approach is likely to avoid unanticipated adverse effects by making adjustments on the basis of the observation of effects on riparian resources. Regardless of the timing of the use and the characteristics of the site, riparian resources would benefit from a progressive, monitored approach to changes in the level of grazing use.

Use of a phased-in approach for large grazing decreases avoids some risk to riparian resources to the extent it maintains cooperation and public support for changes in management. Because sites do not always respond in the short term to changes in grazing, including livestock exclusion or changes in the amount of grazing (Elmore and Betchta 1987; Clary et al. 1996), large changes without phase-in risk loss of user support if expected results are not achieved. In most instances, a cautious and progressively implemented management strategy that produces the intended results creates public support and understanding.

Temporary Nonuse: Eliminating the 3-consecutive-year limit for temporary nonuse would positively benefit riparian and aquatic resources. Removing the limit would increase flexibility and extend the timeframe available for riparian recovery.

Basis for Rangeland Health Determinations: The regulations would require the use of monitoring data in making determinations that existing grazing management practices or levels of

grazing use are significant factors in failing to achieve standards and conform with guidelines. Over the last 5 years about 16 percent of the allotments evaluated failed to meet a standard because of existing grazing management. Based on this experience, as explained in section 4.3.1, it is reasonable to project that this provision would require monitoring data to support determinations on a maximum of 16 percent of the future allotment evaluations. Since our assessments have been focused on high priority allotments with at-risk resources, the proportion of determinations requiring monitoring in the future is likely to be lower. This provision may create an additional workload and would require focusing monitoring on high priority allotments where BLM suspects existing grazing management inhibits achievement of standards. Although this feature limits flexibility in prioritizing monitoring, it establishes a minimum standard for decision making. The result may be improved quality and sustainability of grazing decisions.

Timeframe for Taking Action to Meet Rangeland Health Standards: Riparian vegetation would benefit from carefully considered and designed management responses. The regulations would provide adequate time for coordination, consultation, and cooperation to evaluate and develop reasonable management options, as well as complete required processes. This approach would require careful management in riparian areas that are functioning-at-risk with a downward trend, where improper grazing use combined with a high stream-flow event could cause the system to become nonfunctional. Depending on the stream system and nature of degradation resulting from such circumstances, recovery could be either short or long term.

4.3.3 Fire and Fuels

Fire is a variable, dynamic force with diverse responses and effects. Understanding these processes and interactions is important in determining the role of wildland fire and its effects on the environment. Understanding fire as an ecological process and how it interacts with the environment is critical for developing land management objectives and sustaining rangeland health. The National Fire Plan has resulted in a higher priority being placed on treatment actions and more resources being provided to the fire program to increase treatment acres.

Overall, the proposed regulation slightly improves the ability to move toward vegetation management objectives because these regulation changes will aid in the reestablishment of fire regimes that more closely resemble that which occurred historically. This is due to the increased time available to coordinate with permittees or lessees during the decision-making process of implementing actions to meet rangeland health standards. Additional time for coordination may result in consensus on vegetation treatment objectives and the actions needed to achieve them.

4.3.4 Soils

4.3.4.1 Upland Soils

The net long-term effect of the regulations would be to maintain or slowly improve the present condition of the upland soil resource through maintenance of adequate watershed cover. Short-term adverse effects are possible where watershed cover is not adequate due to current livestock management. Where the effect on the upland soil resources on an individual allotment has the potential to be adverse, the BLM retains authority under 43 CFR §4110.3-3(b) to curtail grazing.

Implementation of Changes in Grazing Use: Phase-in of changes in active use over a 5-year period would have minimal effects overall but could have an adverse effect on an individual allotment where vegetation conditions fail to provide adequate protection from erosion. As described in section 4.3.1, management changes where active use is reduced by 10 percent or more is only applied to a small proportion of the 16 percent of allotments that failed standards due to existing grazing management. Therefore, the number of allotments where short-term adverse impacts may occur due to delayed implementation, is small.

Temporary Nonuse: Removal of the limit on consecutive years of nonuse could have a beneficial effect on upland soil resources in allotments where greater natural recovery of watershed cover is desirable. This regulation could also potentially increase BLM's flexibility to rest allotments affected by drought or restoration treatments and thus improve watershed vegetation cover and soil physical characteristics such as compaction. The improvements would be most pronounced in higher elevation, moister portions of the analysis area. Improvements would be slower and most difficult to achieve in the drier portions of the Tropical–Subtropical and Temperate Desert divisions.

Basis for Rangeland Health Determinations: Requiring the use of both standards assessment and monitoring data to determine if existing grazing management practices or levels of grazing use are significant factors in failing to achieve standards and conform to guidelines would have no long-term adverse effect on upland soil resources. A short-term adverse effect would be possible if determination and implementation of management changes are delayed. However, as described in section 4.3.1, only 16 percent of the allotments evaluated failed standards due to existing grazing management. Therefore, the number of allotments that could be subject to degradation as a result of delays to collect data is small.

Timeframe for Taking Action to Meet Rangeland Health Standards: Allowing the BLM as long as 24 months to formulate, propose, and analyze the appropriate action for addressing failure to meet rangeland health standards would have little or no adverse short-term effect on the upland soil resources. The long-term effect on upland soil resources of this rule change could be positive if it allows more time for developing a comprehensive plan that would help improve watershed cover.

4.3.4.2 Riparian Soils

The regulations would have no long-term adverse effect on riparian soil resources. Short- and long-term environmental consequences of the proposed management alternative would be similar to those of upland soils except that the high moisture content of riparian soils could accelerate responses to improved management practices.

Implementation of Changes in Grazing Use: Phase-in of changes in active use over a 5-year period would not have any effects on riparian soils because reducing livestock numbers is seldom used as a restorative management tool in riparian area management.

Temporary Nonuse: Removal of the limit on consecutive years of nonuse could have a beneficial effect on riparian soil resources in riparian areas where greater natural recovery of desirable riparian vegetation has occurred. This and other rule changes that enhance desirable riparian vegetation density and vigor would improve riparian stability and increase growth of deep-rooted, riparian vegetation that helps dissipate stream energy, protects streambanks, and filters sediment

and pollutants from the stream. This rule change could also potentially increase the Bureau's flexibility to rest allotments affected by drought or restoration treatments, and thus could improve riparian vegetation cover and soil physical characteristics such as compaction.

Basis for Rangeland Health Determinations: Requiring the use of both assessment and monitoring data to determine if existing grazing management practices or levels of grazing use are significant factors in failing to achieve rangeland health standards may have a short-term adverse effect on riparian soil resources but no long-term adverse effects. Short-term adverse effects could occur if conducting assessment and monitoring postponed determination and management changes on riparian soils with poor vegetative cover, due to current management, which are at risk of erosion during infrequent flooding. However, as described in section 4.3.1, only 16 percent of the allotments evaluated failed standards due to existing grazing management. Therefore, the number of allotments that could be subject to degradation as a result of delays to collect data is small. Finally, the BLM retains authority under 43 CFR §4110.3-3(b) to curtail grazing to prevent significant resource damage.

Timeframe for Taking Action to Meet Rangeland Health Standards: Allowing the BLM as long as 24 months to formulate, propose, and analyze appropriate action for addressing failure to meet rangeland health standards would have no adverse long-term effects on riparian soil resources. The long-term effect on riparian soil resources of that regulation could be positive if it allows more time for developing a comprehensive plans that help improve protective riparian vegetation density and vigor.

4.3.5 Water Resources

The proposed regulations would have little or no effect on present water resource conditions. Streams that now meet State water quality standards and are part of properly functioning riparian ecosystems would remain in their present condition. Water bodies that fail to meet State water quality standards and streams that are functioning at risk or in nonfunctional condition will remain static until management changes are implemented, after which slow improvement would occur.

Implementation of Changes in Grazing Use: Many rangeland watersheds throughout the western United States are presently stressed as a result of ongoing drought. Drought conditions pose a barrier to prompt and effective implementation of restorative actions. Extended timeframes for implementation of changes in management may delay short-term watershed recovery but would not affect long-term watershed recovery. As described in section 4.3.1, management changes where active use is reduced by 10 percent or more is only applied to a small proportion of the 16 percent of allotments that failed standards due to existing grazing management. Therefore, the number of allotments where the implementation timeframe could be delayed due to phasing in changes is small.

Temporary Nonuse: Granting approval of nonuse for extended periods would have a beneficial effect on watersheds that are stressed by short-term climatic variation or cumulative effects from long-term grazing.

Basis for Rangeland Health Determinations: The proposed regulation requires assessment and monitoring data when making determinations that existing grazing management or levels of grazing use are significant factors in failing to achieve rangeland health standards and conform with grazing management

guidelines. In allotments with degraded channel morphology (function) and water quality that fails to meet State standards, those resource conditions would remain static until management designed to achieve desired vegetative cover is implemented. Implementation would initiate a gradual recovery process. Extended timeframes for monitoring would delay implementation of management changes; however, this would create opportunity for development of more effective management and accelerated recovery. Since 16 percent of the allotments evaluated failed standards due to existing grazing management, the number of allotments that may degrade as a result of delays to collect data is small.

Water Rights: The proposed water right policy changes would have no effect on water resources as long as the water resources remain available for use on public land.

4.3.6 Air Quality

Overall, the proposed regulation is expected to potentially improve air quality slightly when compared with the existing situation because of the improvement in vegetative cover as a result of implementation of better and more sustainable decisions. These actions would facilitate a move toward meeting rangeland health standards. The key elements of the proposed regulation that would have the most beneficial effect are as follows:

Basis for Rangeland Health Determinations—The use of assessments and monitoring would provide better and more accurate information for use in making determinations that existing grazing management or levels of grazing use are significant factors in failing to achieve rangeland health standards and conform with grazing management guidelines.

Timeframe for Taking Action to Meet Rangeland Health Standards—which extends the timeframe for implementation of the actions and therefore allows for better coordinated efforts.

4.3.7 Wildlife

This environmental impact analysis focuses on policy and regulation changes for livestock grazing as they affect wildlife populations and their habitats on the more than 160 million acres grazed by domestic livestock in the western United States. Most of the changes under the rulemaking are expected to have little or no effect on wildlife, as the changes largely provide clarification of the existing regulations or bring the regulations into compliance with court orders. Other concerns will be addressed when this EIS is tiered to the local level, for example, BLM Offices are required to review the adequacy of existing environmental analyses when grazing permits are issued,

The potential concerns for wildlife species from changes in the grazing regulation are outlined here. Ramifications of changes to special status species are discussed in the next section.

Implementation of Changes in Grazing Use: Allowing the adjustment in active use in excess of 10 percent to be implemented over a 5-year period has the potential to negatively affect wildlife in the short-term. However, the number of allotments affected is likely to be smaller than 16 percent because changes in active grazing use in excess of 10 percent are infrequent (see Section 4.3.1). Much more common is a change in season of use or location of use. With the cooperation of the permittee or lessee, changes can be made immediately. Further, under 43 CFR §4110.3-3 (b), if the BLM determines that there is an imminent likelihood of significant resource damage, immediate changes can be made.

Temporary Nonuse: This alternative allows BLM to approve nonuse for longer than 3 consecutive years. This requirement may benefit wildlife by allowing a longer time period for habitat to recover from rehabilitation or other effects through application for annual temporary nonuse by the permittee or lessee in cooperation with BLM. However, BLM still reserves the ability to close areas to grazing if conditions warrant.

Timeframe for Taking Action to Meet Rangeland Health Standards: Providing the BLM time, up to 24 months, to develop, formulate and analyze the appropriate action as well as complete consultation requirements and compliance with other laws such as NEPA and ESA has the potential for adversely affecting wildlife in the short term by delaying actions that may benefit wildlife species. As in the earlier discussion of "*Implementation of Changes in Grazing Use*," such impacts could be reduced if the BLM works cooperatively with the permittee or lessee to efficiently complete all planning and analysis in a timely fashion. It is anticipated that the extended timeframe would allow for the formulation of better and more sustainable decisions that would result in better resource conditions in the long term. Thus in the long run, wildlife may benefit from this provision.

4.3.8 Special Status Species

This analysis focuses on policy and regulation changes for livestock grazing as they affect special status species and their habitats. The changes under the proposed regulations are expected to have no effect on special status species, as the changes largely provide clarification of the existing regulations or bring the regulations into compliance with court rulings. Concerns about specific species will be addressed when this EIS is offered at the local level. When grazing permits are issued, BLM Offices are required to review the adequacy of existing environmental analyses. At that time, if it is determined that federally listed/proposed threatened or endangered species may be affected or federally designated/proposed Critical Habitat may be adversely modified; a Section 7 consultation will be conducted. When species become federally listed after the issuance of a grazing permit, consultation will be initiated. The potential concerns for special status species from changes under the proposed regulations are outlined below.

The Endangered Species Act (ESA) requires the agency to manage threatened and endangered species and the habitats they depend upon. The BLM special status species as those that are officially listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq*.) as threatened or endangered; are proposed for listing, or are candidates under the provisions of the ESA; listed by a State in a category such as threatened or endangered; and those designated by each BLM State Director as BLM-sensitive. Appendix B provides the most up-to-date list of BLM special status species in each State. While this list is BLM's most up-to-date list of special status species, the list may change at any time according to changes in the listings by the FWS; more current data from recent investigations; and further verification of a species presence on public land.

Implementation of Changes in Grazing Use: The 5-year phase-in provision does not apply to those species that are officially listed under the ESA as threatened or endangered; are proposed for listing, or are candidates for listing as threatened or endangered under the provisions of the ESA; or listed by a State in a category such as threatened or endangered. Furthermore, the provision does not apply to designated or proposed Critical Habitat covered by ESA. Section 4110.3-3(a)(ii) provides an exception to the 5-year phase-

in "where changes must be made before 5 years have passed in order to comply with applicable law." Under this provision, reductions in active use of more than 10 percent would be implemented immediately in order to comply with "applicable law". However, at risk species such as the sage-grouse, pygmy rabbit, mountain plover, and mountain quail; and those designated by each BLM State Director as BLM-sensitive may be affected in the short-term if the livestock grazing stocking rate is affecting their decline. The need for changing livestock stocking rates is relatively uncommon and changes in active grazing in excess of 10 percent are very infrequent. Much more common are changes in the time or duration of grazing use, the season of use or location of use - all of which may be implemented without a phase-in period.

There are several ways to avoid impacting special status species. If the BLM manager determines that natural resources require immediate protection because of conditions such as drought, fire, flood or insect infestation or that continued grazing use poses an imminent likelihood of significant damage to natural resources, then the BLM manager is required to close all or a portion of the allotment to livestock grazing or otherwise modify grazing use under 43 CFR §4110.3-3(b). Such decisions may be issued as final decisions effective upon issuance or on the date specified in the decision and are not subject to the phase-in requirement. Another method for avoiding impacts to special status species is for the BLM to work cooperatively with the permittee or lessee to implement the action immediately without any phase-in period.

Table 3.10.2.1 shows the FWS (Western Regions—Regions 1, 2, and 6) Birds of Conservation Concern (BCC) 2002. The BCC 2002 shows the nongame avian species that are likely to become candidates for listing under the ESA. There are 39, 87, and 45 avian species on the BCC 2002 in the Pacific Region, Southwest Region, and Mountain-Prairie Region, respectively.

Temporary Nonuse: This provision, which enables the BLM to approve nonuse for longer than 3 consecutive years, allows BLM more flexibility in allowing habitat to recover. This requirement should benefit special status species by allowing a longer timeframe for habitat to recover from rehabilitation or other impacts. However, the BLM still retains the ability to close areas to grazing if conditions warrant closure.

4.3.9 Wild Horses and Burros

The environmental impact analysis focuses on the proposed regulations for livestock grazing as they would affect wild horse and burro populations and their herd management areas on the 34 million acres grazed by both domestic livestock and wild horses and burros in the western United States.

Overall, the proposed regulations would slightly improve vegetative conditions over the long-term through better and more sustainable decisions, as a result of having more time to provide effective coordination. Wild horses and burros should benefit from any improvement in rangeland health. However, in the short term, the effect of the rulemaking which allows changes in active use in excess of 10 percent to be phased in over 5 years, could have minor adverse effects on some herd management areas (HMA). Those HMAs occupied by wild horses and burros where livestock grazing stocking rates need adjustments greater than 10 percent could experience short-term minor adverse effects. However, the number of allotments would be small given the fraction of allotments where reductions in active use would be greater than

10 percent (see Section 4.3.1). There are no other noteworthy effects from the rulemaking to wild horses and burros.

4.3.10 Recreation

Overall, the proposed regulation would have minimal effects on the recreation program. The highest potential for an effect occurs on recreational activities which are enhanced or diminished by the natural condition of the lands on which they are located, such as hiking, hunting, fishing, sightseeing, and enjoying naturalness. The effects could be adverse in the short-term for such activities on a small number of allotments (16 percent of the allotments not yet evaluated for rangeland health, see Section 4.3.1) if the implementation of corrective actions to improve rangeland health is delayed, and the allotment is in a downward trend.

The least effect on recreation opportunities would occur at highly developed recreation areas where grazing may be restricted and where recreationists tend to be less sensitive to evidence of grazing. Highly developed recreational activities, such as use of off-highway vehicles (OHV) or developed campsites, would not be affected by any changes in rangeland conditions expected under the proposed regulations.

Effects both positive and negative would be greatest in higher and moister areas where more grazing use occurs, and least in the driest areas that improve at slower rates. Both commercial and noncommercial activities would be similarly affected. Revenues from commercial recreation that rely on healthy ecosystems could remain static or decline somewhat in the short term, but would generally be unaffected by this proposal in the long term.

Under some circumstances, where rangeland health standards are not attained, improvement of conditions could either be delayed or accelerated under the proposed action. Delays may occur as a result of acquisition of additional monitoring data, additional time for the development of management actions, or a 5-year phase-in implementation period. The effect of these delays would vary according to site-specific circumstances and conditions. Accelerated improvement of resource conditions may occur as a result of better decisions from the use of monitoring data and an adequate timeframe for developing management actions that are sustainable. There are no substantial effects to recreation from the other key elements in the proposed regulations.

4.3.11 Special Areas

Overall assumptions for *all Alternatives*: Special Areas would base determinations and decisions resulting from the proposed regulations with full application of the originating proclamations and laws and policies—whichever is appropriate—to determine implementation suitability. Special Area mandates—including the preservation, protection, conservation, and enhancement of resources, as well as other values and uses—must take priority over subordinate purposes.

Implementation of the proposed regulations would have minimal effects on special areas in comparison with the existing situation. Special areas are normally in healthy rangeland condition, and would not normally be in need of livestock reductions. Therefore, the differences between the proposed regulations and the existing situation would not have measurable effects on these areas in the short term or long term.

4.3.12 Heritage Resources: Paleontological and Cultural Resources (Properties)

The majority of the proposed regulation changes, clarifications, and additions will have no effect on heritage resources, whether for on-the-ground actions or for the process and requirements of cultural resource management.

Implementation of Changes in Grazing Use: The 5-year phase-in provision could have both beneficial and adverse effects on heritage resources. In the case of decreasing use, heritage resources could be subject to continued effects before the decision is fully implemented; alternatively, in the case of increasing use, the delay could allow extra time to provide protection or data recovery of sites that may be affected by the change.

Basis for Rangeland Health Determinations: Changes to the provision of rangeland health determinations could indirectly affect heritage resources by increasing workload due to site or locality monitoring data requirements, which could delay implementation of grazing related actions.

New project developments will continue to be analyzed for effects on heritage resources on a case-by-case basis; for field office or district area wide planning efforts, the BLM addresses livestock grazing impacts at the land use planning or allotment management planning level. Cultural resource surveys precede management actions that could damage heritage resources (BLM Manual 8100, The Foundations for Managing Cultural Resources). Historic and prehistoric archaeological sites found during surveys would be protected in accordance with the National Historic Preservation Act of 1966 (revised) and other laws or executive orders as stated in the Code of Federal Regulations (36 CFR §800). Additionally, Tribal consultation begins as soon as possible in any case where it appears likely that the nature and/or location of the activity could affect Native American interests or concerns.

4.3.13 Economic Conditions

Overall, the local and regional economic effects of the proposed regulations would be minor. The primary effects would be:

1. increased management flexibility for both permittees and the BLM,

2. increased administrative costs to the BLM,

3. reduced potential adverse economic effects to permittees by increasing the amount of time to make rangeland health determinations and implement grazing decisions,

4. increased service charges to permittees undertaking specific actions, and

5. increased cost recovery to BLM for certain permittee-initiated grazing actions.

The following provisions have the greatest likelihood of creating economic or administrative effects, though none of the provisions, either individually or cumulatively, is considered significant.

Social, Economic, and Cultural Considerations in the Decision-Making Process: The primary effect of this provision would be to increase BLM administrative costs, and perhaps time, to complete NEPA analysis of changes in permitted use. NEPA already requires federal agencies to consider the effects on the human environment in all of its analyses, including social, economic, and cultural factors. The BLM does consider social, economic, and cultural factors in

its decision making but, in some instances, those considerations may not be documented. Where offices are already documenting these considerations, there will likely be no additional workload. However, in some offices, more documentation will increase the workload.

An additional economic effect of this provision may be that, to the extent that social, economic, and cultural factors were not previously documented, decisions on changes in permitted use may change. This could either benefit or harm the permittee, depending on how the decision might change. Likewise, it could benefit or harm other general economic conditions.

Implementation of Changes in Grazing Use: Decreases or increases in active use exceeding 10 percent of the existing permit would be phased in over a five-year period unless the permittee agrees to a shorter period or there is need to comply with applicable law (e.g., the Endangered Species Act). A 5-year phase-in of decreases in active use would mitigate the potential economic effect on permittees by allowing ranchers additional time to make alternative arrangements. However, it may also delay needed improvements in rangeland conditions for the short-term; which may in turn delay the achievement of sustainability of range conditions and the permittee's economic viability for the short-term. Phasing in increases in use would also allow permittees to better plan future use to the extent that additional time may be needed to increase herd size or adjust seasons of use.

Range Improvement Ownership: Shared title of range improvements could potentially improve permittees' financial condition to the extent that title may increase the value of their operations or increase their ability to obtain financing. However, permittees presently do have shared financial interest in range improvements and are compensated for the contribution they made under a cooperative agreement in the event the permit changes ownership, so it is not clear what the net effect of this provision might be. From 1982 to 1995, ownership of range improvements was held jointly by the U.S. government and permittees. Since 1995, the Federal government has held sole title. In some States, there was a noticeable decrease in range improvements from 1995 to 1996, but following 1996 the trends are more erratic. Also, there was an overall declining trend in the numbers of range improvements since 1982 for all States combined. Thus, the data on numbers of range improvements before 1995 and after 1995 do not reveal whether permittees became permanently more reluctant to participate in range improvements, or what the effect may have been on the value of their operations.

Temporary Nonuse: This provision would increase the number of years permittees could take nonuse. Presently, permittees may only take up to 3 consecutive years of nonuse and this provision would eliminate that three consecutive year limitation. This would be a beneficial economic effect to permittees. Also, it would increase flexibility for both permittees and BLM, since there are a variety of financial and resource condition reasons for taking nonuse beyond 3 years.

Basis for Rangeland Health Determinati ons: Rangeland health determinations would need to be based on standards assessments and monitoring before proposing possible changes in permitted use. This may delay some determinations and increase costs to the BLM to address additional monitoring requirements. The effect on permittees would be that initiation of proposals for changes in permitted use would be delayed and thus any potential changes in their operations would be delayed. This may be a beneficial effect to permittees, depending on whether resource

conditions on their allotments can sustain delays in improvement.

Definition of Grazing Preference, Permitted Use, and Active Use: Deleting the term "permitted use" and changing the definition of "grazing preference" to include the total number of Animal Unit Months (AUMs) apportioned and attached to base property would have no economic effect. This change reflects essentially a return to the pre-1995 grazing regulations. The 1995 regulations changed the definition of grazing preference to the superior or priority position against others for the purpose of receiving a grazing permit or lease. The priority is attached to base property owned or controlled by the permittee. In addition, the 1995 regulations added the term "permitted use" to mean the forage allocated by, or under the guidance of, an applicable land use plan; it is expressed in AUMs. There was no economic effect from changing the regulations in 1995 and, likewise, there would be no economic effect from returning to the earlier definitions.

Timeframe for Taking Action to Meet Rangeland Health Standards: The effects would be similar to those from the rangeland health determinations in that BLM would have a longer time, as long as 24 months after determination, to analyze any proposed changes to address resource conditions. This delay could potentially benefit permittees in the same way as the rangeland health determination provision above, assuming that delays in proposed changes to permitted use do not cause continued deterioration in range conditions and thus the economic viability of the permittee's operation.

Definition and Role of the Interested Public: This provision could result in reductions in costs for the BLM, but these cost savings would be minor. There are still requirements for consultation, cooperation, and coordination with permittees or lessees and the State. And the interested public would still be afforded the opportunity for public involvement for various actions including those that affect long term grazing management direction at the allotment level. However, there would be agency actions taken that BLM would not be *required* to consult with the interested public. This provision could have an adverse effect on BLM management because it may be viewed as excluding the public from decisions where public input was previously required.

Changes in Grazing Use Within the Terms and Conditions of the Permit or Lease: This provision could increase management flexibility for both the BLM and permittees but would probably have little economic effect because overall forage utilization could not exceed the amount of active use specified in the permit. For example, if resource conditions indicated forage availability earlier than the authorized turn-out date on the permit, the BLM could authorize temporary changes in grazing use to allow an earlier turn-out date, as long as total use does not exceed the amount of active use authorized by the permit. Without this provision, the BLM would have to issue a temporary, nonrenewable (TNR) authorization to allow use that begins before or ends after the dates specified in the permit. A process that is more time-consuming and costly than simply basing authorization on the existing permit or lease. This provision could not only increase management flexibility, but could lower BLM's costs. It could also result in more efficient utilization of forage because it allows permittees and the BLM to respond to annual fluctuations in timing and amount of forage production. However, in some BLM States, the range staff already authorizes temporary changes in use with no problems because the terms and conditions of the permit are flexibly written.

Service Charges: Increasing service charges for certain actions is essentially a cost-recovery measure for the U.S. Treasury. The primary effect of increasing service charges for certain actions would be to transfer some costs from the public (i.e., the BLM) to permittees. The present fee is $10; under the proposed action, fees would increase to the following:

1. Issuance of crossing permit ($75)

2. Transfer of grazing preference ($145)

3. Cancellation and replacement of grazing fee billing ($50)

Table 4.3.13.1 shows the net cost recovery for each of these three permittee-initiated actions.

4.3.14 Social Conditions

Basis for Rangeland Health Determinations: The proposed regulations would have minor beneficial direct social effects on permittees stemming from the required combination of assessment and monitoring for determinations that existing livestock grazing practices or levels of grazing use are significant factors in failing to achieve standards of rangeland health or comply with guidelines. Permittees believe that their relation to the decision process is strengthened when valid monitoring data are available for use. Environmental, conservation, and recreation groups will experience minor beneficial social effects for similar reasons. Monitoring data are seen by all groups as strengthening the basis for decisions and, therefore, enhancing the resource. Over the long term, the proposed regulations would have a cumulative positive effect because long-term data would be available to all groups to more accurately assess the condition of the resource and to provide a foundation for range improvements and projects (Table 4.3.14.1).

Changes in Grazing Use Within the Terms and Conditions of the Permit or Lease: Permittees will experience minimal social effects due to the specification of reasons for changes to grazing use. Effects on other groups are also minimal.

Table 4.3.13.1. Cost recovery under proposed service charges.

Action	Proposed Service Charge	Current Service Charge	Difference (i.e. increase in cost recovery)	Average Unit Cost to Complete Action	Net Cost Recovery
Transfer Grazing Preference	$145	$10	$135	$2,255	–$2,110
Crossing Permit	$75	$10	$65	$339	–$264
Supplemental Grazing Billing	$50	$10	$40	$339	–$289

Source: BLM *Management Information System 2003* (BLM 2003).

Table 4.3.14.1. Social effects of the proposed action.

Element	Group	Direct Effect	Indirect Effect	Cumulative Effect	Regional Differences	Likelihood of Occurrence
Social, Economic, and Cultural Considerations in the Decision-Making Process	Permittees	Minor Beneficial				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Implementation of Changes in Grazing Use	Permittees	Beneficial	None	None	None	Good
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Range Improvement Ownership	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Cooperation with State, County, and Local Established Grazing Boards	Permittees	Minor Beneficial		Minor Beneficial		
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Review of Biological Assessments and Evaluations	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Temporary Nonuse	Permittees	Adverse	None	Adverse	None	Potential
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Basis for Rangeland Health Determinations	Permittees	Minor Beneficial	None	Minor Beneficial	None	Potential
	Conservation & Environmental	Minor Beneficial	None	Minor Beneficial	None	Potential
	Recreation	Minor Beneficial	None	Minor Beneficial	None	Potential
Biological Assessments —Application of Protest and Appeal Provisions	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				

Table 4.3.14.1 (continued). Social effects of the proposed action.

Element	Group	Direct Effect	Indirect Effect	Cumulative Effect	Regional Differences	Likelihood of Occurrence
Timeframe for Taking Action to Meet Rangeland Health Standards	Permittees	Minor Beneficial	None	None	None	Potential
	Conservation & Environmental	Minor Adverse	None	None	None	Potential
	Recreation	Minimal				
Conservation Use	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Definition of Grazing Preference, Permitted Use, and Active Use	Permittees	Minor Beneficial				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Definition and Role of Interested Public	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Water Rights	Permittees	Beneficial	None	Beneficial	Yes	Good
	Conservation & Environmental	Adverse	None	Adverse	Yes	Potential
	Recreation	Minimal				
Satisfactory Performance of Permittee or Lessee	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Changes in Grazing Use Within the Terms and Conditions of the Permit or Lease	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Definition and Role of Interested Public	Permittees	Minimal				
	Conservation & Environmental	Minimal				
Service Charges	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				

Table 4.3.14.1 (concluded). Social effects of the proposed action.

Element	Group	Direct Effect	Indirect Effect	Cumulative Effect	Regional Differences	Likelihood of Occurrence
Prohibited Acts	Permittees	Minimal				
	Conservation & Environmental	Adverse		Adverse		Potential
	Recreation	Adverse		Adverse		
Grazing Use Pending Resolution of Appeals When Decision Has Been Stayed	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Definition of Grazing Preference, Permitted Use, and Active Use	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Treatment of Biological Assessments and Evaluations in the Grazing Decision-Making Process	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				

Source: Section 4.3.14, Final Environmental Impact Statement

Cooperation with State, Tribal, County and Local Government-Established Grazing Boards: Permittees will experience minor beneficial social effects from this proposed action. The specific requirement to coordinate with grazing boards should stimulate the development of additional grazing boards throughout the West. Thus, the BLM will increase coordination with ranchers as individual permittees and lessees at the allotment level and additionally as a group. Because they have other avenues for monitoring and challenging decisions, social effects on environmental, conservation, and recreation groups will be minimal.

Definition and Role of Interested Publics: Any social effects from the proposed regulations are related to the list of actions for which consultation, cooperation, and coordination are required. Public involvement does not change for those actions related to planning, but is reduced regarding operational decisions. The manner in which a public gains standing is clarified. In sum, these changes should have minimal social effects on all groups.

Grazing Preference: The proposed regulations will have minimal positive social effects on permittees because it reinforces their belief that permits should be used for livestock grazing. The definition of preference and active use are consistent with their belief that maintaining ranching as the primary use of allotments enhances the stability of their communities and social networks. This change will have minimal effect on the other groups in question.

Implementation of Changes in Use: The proposed regulations would have minor beneficial direct social effects on permittees.

The 5-year timeframe provides flexibility and reduces the immediacy of social and economic stress on ranchers and their families in the event of a cut in active use. Environmental and conservation groups generally oppose this idea, instead preferring immediate implementation to prevent further resource degradation. However, these groups could see no direct social effects stemming from this change. It will also have minimal effect on recreation groups.

Range Improvement Ownership: The proposed regulations would have minimal social effects on permittees. Most expect only a marginal increase in improvements because of being offered title. Social effects on recreational users will be minimal. Effects on conservation and environmental groups are also minimal, being confined mostly to the feeling that permittees holding title to anything on public land is unwarranted. Minimal effects on any group are expected from this proposed action concerning nonstructural improvements.

Satisfactory Performance of Permittee or Lessee: This proposed regulation could have minimal social effects on permittees and conservation and environmental groups by setting out what satisfactory performance actually is, as opposed to what it is not. For the purposes of their involvement in the management of allotments, this provides benchmarks and implies data needs, but is unlikely to require a demonstrable change in how either group interacts with the BLM.

Social, Economic, and Cultural Considerations: This provision does not change the basis for assessing the effects of grazing administration decisions. Any social effects would be related directly to how the information is used or how such considerations are weighed in making decisions. Social effects of the proposed action will be minimal for conservation and environmental advocates, and for recreational users. By requiring that projected social, economic, and cultural effects be documented, the requirement may result in greater attention being given to such factors. This would likely have a minor beneficial effect on permittees.

Temporary Nonuse: This action will have direct adverse social effects on most permittees. Permittees and lessees feel that a limit on the number of years for which nonuse can be taken is important for maintaining the economic and social viability of their communities. This provision allows permittees and lessees not interested in grazing to apply each year to keep livestock off of the allotments. Permittees see this as being the practical equivalent of a conservation use of these allotments that may produce a cumulative effect over time that reduces their relative social networks within the community and, to them, threatens community stability. These adverse effects could be substantially reduced if forage available during nonuse is apportioned for livestock grazing to other applicants. This would meet objections concerning maintenance of the local livestock herd to maintain economic stability. Minimal effects are expected on recreation groups. Minimal positive social effects are expected on conservation and environmental groups. These stem mostly from their belief that the open-ended nature of the proposed action allows for nonuse to continue as long as necessary to recover good resource conditions. This allows them greater opportunity to work with ranch owners to change management practices on allotments within timeframes they think are more ecologically effective. This would allow them to reallocate organizational resources accordingly. The proposed reasons for approving temporary nonuse will have no social effects on permittees, recreation

groups, or conservation and environmental groups.

Timeframe for Taking Action to Meet Rangeland Health Standards: Minor beneficial direct effects will accrue to permittees from this proposed regulation. They view this proposal as decompressing the decision process surrounding rangeland health standards thereby allowing for better decisions and allowing permittees to plan for potential changes in ranch management. Minimal effects are expected for recreation groups. Social effects for conservation and environmental groups will be minor and adverse. Under this proposed regulation, these groups could encourage and achieve an agency determination about rangeland health but action could be precluded for a 24-month period pending consultations or other action. Direct effects are primarily a perceived degradation in their public access to the BLM decision process, and psychological effects within the organization in that this proposed action engenders a feeling that the decision process is designed to preclude their involvement to a great degree while their concerns about degradation of the resource are minimized.

Water Rights: Permittees will experience beneficial direct and cumulative social effects stemming from the proposed regulations reinforcing their belief that water belongs in private hands. They see the management of water resources for livestock as stabilizing their communities. The proposed regulations could also increase their certainty of stock water resources in the future. This amounts to a potential increase in their rights to stock water over time. Conservation and environmental groups see this proposed action as returning water rights to those who do not use them to support the ecosystem and therefore local communities. These groups believe that the public holds certain rights to water on public land. The proposed action is seen as precluding uses of water on behalf of the public that are not essentially stock water. They view this as a reduction in their rights to this resource and expect direct and cumulative negative social effects over time. Recreation groups will see few social effects from this proposed regulations.

4.3.15 Environmental Justice

The regulatory changes here must be considered for their potential effect on low-income, minority, and Tribal populations. Executive Order 12898 requires that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Exec. Order No. 12,898, 59 Fed. Reg. 32 (Feb. 16, 1994). Environmental justice is defined as the "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of Federal, State, local, and Tribal programs and policies" (BLM 2002a).

Although there is no standard method for assessing such effects, any environmental justice review should, to the extent feasible, involve the following steps:

1. Determine the boundaries of the potentially affected area.

2. Identify low-income, minority, and Tribal populations within the area to be subjected to the proposed action.

3. Identify potentially significant, adverse health and environmental effects that may affect one or more of these populations.

4. Consider "the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action" (CEQ 1997).

5. Determine whether such an adverse effect "appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group." (CEQ 1997).

6. Determine whether adversely affected low-income, minority, or Tribal populations have been subjected to "cumulative or multiple adverse exposures from environmental hazards" (CEQ 1997), which should include the results of actions by other parties (BLM 2002a).

An environmental justice analysis is most feasible in project-level undertakings, where there is a limited affected area and specific environmental effects to be evaluated. It is more difficult in the large-scale review involved in resource management plans, and particularly problematic in regulatory changes having nationwide application, as in the proposed changes to the BLM's grazing regulations.

Approximately 160 million acres of BLM-administered land in the West are suitable for grazing. At this geographic scale, it is not feasible to identify specific, potentially affected low-income, minority, or Tribal populations and examine their reliance on public lands grazing. Rather, an analysis should determine if there is a systematic differential effect inherent in the proposed actions, and if so, whether this effect falls disproportionately on one of these populations.

For example, a change in range health standards that resulted in a broadly applied reduction in permitted AUMs would disproportionately reduce the financial viability of ranching operations having a high dependence on public grazing allotments. If there were a reasonably consistent association between high dependence on public grazing and herds owned by minority, or Tribal ranchers, there might be a conflict with environmental justice principles. (The association between smaller ranches and lower incomes is obvious, and by its nature unlikely to be judged discriminatory.)

The regulations considered here do not involve this type of on-the-ground change in grazing operations. Instead, they concern such matters as the phase-in period for changes in conditions of active use; ownership of rangeland improvements; and the opportunities for public comment in grazing administration decisions.

The economic impact analysis found most of the changes to be either neutral or beneficial for ranchers with BLM grazing allotments, although for a few measures it was not possible to predict whether the effect would result in a net cost or net benefit.

The social impact analysis found the measures neutral or beneficial, with the possible exceptions of regulations concerning prohibited acts, temporary nonuse, and water rights. Conservation and environmental groups may experience some adverse effects from proposals regarding prohibited acts and water rights, in that these measures are inconsistent with their understanding of conditions fostering the health of streams and rangelands. Permittees

may experience some adverse effects from the proposed modification of the length of temporary nonuse. None of these predicted effects, however, would seem to fall disproportionately on low-income, minority, or Tribal populations.

In summary, the changes to BLM's grazing regulations do not violate environmental justice principles.

4.4 Alternative Three: Modified Action

The direct and indirect effects of implementing the regulatory changes known as Alternative Three—Modified Action, as described in Section 2.3, are presented in this section.

4.4.1 Grazing Administration

The effects of the Modified Action Alternative are similar to those of the proposed action in that the Modified Action Alternative emphasizes a stewardship-through-partnership approach to grazing management. It also includes enhancement of administrative efficiency and effectiveness, including addressing legal issues that need clarification. However, it allows the authorized officer to make changes in active use—if greater than 10 percent over a 5-year period—discretionary; does not prescribe that both assessments and monitoring be used as a basis for determinations that identify grazing as a significant factor in failing to achieve rangeland health standards; and makes it a prohibited act to not comply with certified weed seed-free forage, grain, straw, or mulch requirements specified by the Authorized Officer.

Social, Economic, and Cultural Considerations in the Decision-Making Process: The consequences would be the same as the Proposed Action Alternative.

Implementation of Changes in Grazing Use: The effects of this provision would be similar to those of the proposed action except that the phase-in of changes to active use greater than 10 percent may not have to be implemented over a 5-year period. The Authorized Officer may, at his discretion, determine that a shorter or no phase-in period would be warranted. This could provide additional protection to Bureau-listed sensitive species, or other sensitive resource values that may benefit from a shorter phase-in period.

Range Improvement Ownership: The consequences would be the same as the Proposed Action Alternative.

Cooperation with State, Tribal, County, and Local Government-Established Grazing Boards: The consequences would be the same as those of the Proposed Action Alternative.

Temporary Nonuse: Grazing permittees and lessees would only be able to be approved for as long as 5 consecutive years of nonuse for conservation and protection of rangeland resources, or for the personal and business needs that would allow them to better manage their business, such as livestock sales that result in temporary herd size reductions. After the 5-year period has elapsed, the permittee must make full use of the grazing permit or lease. If the BLM determines that additional nonuse would help achieve resource objectives, then the Authorized Officer could issue a grazing decision or enter into an agreement with the permittee or lessee to suspend the permitted use in whole or in part. However, this presents a possible deterrence from a permittee's or lessee's standpoint for declaring nonuse situations, and detracts from cooperative management. In addition, the grazing decision or agreement process would create additional workload on the grazing administration and a delayed timeframe

for addressing needed changes in grazing management.

Timeframe for Taking Action to Meet Rangeland Health Standards: The consequences would be the same as those of the Proposed Action Alternative.

Basis for Rangeland Health Determin ations: Allowing the Authorized Officer discretionary use of monitoring data as a basis for determinations of failure to achieve rangeland health standards due to livestock would allow the BLM flexibility at the local level to prioritize data and information collection. With limited resources the BLM would be able to more efficiently and effectively conduct an overall monitoring and assessment program that places an emphasis on allotments that have high resource values, contain resource conflicts, or are not achieving rangeland health standards. The BLM could focus its energy on using monitoring and assessments to make grazing management changes where they are needed to protect high resource values or show that those values are protected under present management.

Conservation Use: The consequences would be the same as those of the Proposed Action Alternative.

Definitions of Preference, Permitted Use and Active Use: The consequences would be the same as those of the Proposed Action Alternative.

Definition and Role of the Interested Public: The consequences would be the same as those of the Proposed Action Alternative.

Water Rights: The consequences would be the same as those of the Proposed Action Alternative.

Satisfactory Performance of Permittee or Lessee: The consequences would be the same as those of Proposed Action Alternative.

Changes in Grazing Use Within the Terms and Conditions of the Permit: The consequences would be the same as those of the Proposed Action Alternative.

Service Charges: The consequences would be the same as those of the Proposed Action Alternative.

Prohibited Acts: This provision is the same as the Proposed Action Alternative except for adding a provision that requires the use of weed seed-free forage, grain, straw, or mulch when required by the Authorized Officer. This would enable the BLM to enforce weed- free requirements. This preventive measure would reduce the establishment and spread of noxious weeds on BLM-administered lands.

Grazing Use Pending Resolution of Appeals When Decision Has Been Stayed: The consequences would be the same as those of the Proposed Action Alternative.

Treatment of Biological Assessments and Evaluations in the Grazing Decision-Making Process: The consequences would be the same as those of the Proposed Action Alternative.

4.4.2 Vegetation

The effects of implementing Alternative Three on vegetative communities on public lands are expected to be very similar to those of the Proposed Action, Alternative Two, over the long term. Differences between Alternative Three and Alternative Two are analyzed below.

Implementation of Changes in Grazing Use: The alternative of discretionary use of the 5-year phase-in process for reductions of more than 10 percent would give the BLM another option in the few instances where a rapid adjustment is needed, but an agreement cannot be reached with the permittee or lessee. However, the BLM already has an option for immediate action under the proposed regulations, thus, this alternative would have similar effects.

Temporary Nonuse: The limitation of 5 consecutive years of nonuse would adversely affect the public land vegetation when an extended drought limits normal forage production longer than 5 years.

Basis for Rangeland Health Determinations: The use of standards assessments rather than both assessments and monitoring as a basis for failure to achieve rangeland health standards due to livestock determinations will provide for quicker determinations, especially on low-priority lands. This will allow for more staff time to be directed to high-priority areas where there are vegetation condition concerns.

Prohibited Acts: Under this alternative, the additional authority provided by the prohibited act of "Failing to comply with the use of certified weed seed-free forage, grain, straw, or mulch when required by the Authorized Officer" would result in a slower expansion of exotic invasive species on public lands.

4.4.2.1 Riparian and Wetland Vegetation

Under Alternative Three, the effects on riparian and wetland areas would be the same as those under Alternative Two, except for the actions discussed below.

Implementation of changes in Grazing Use: Allowing the flexibility to use a phased approach or not, when changes in grazing use are greater than 10%, would benefit riparian vegetation to the extent it promotes decisions that match needs at local riparian sites. For large increases in the amount of grazing use (greater than 10%), the potential exists for short-term adverse effects on riparian vegetation during full increase implementation. The areas where large increases have been considered involve pastures with upland treatments such as seedings conducted years ago. The BLM emphasis on riparian resource recovery and function is also likely to affect the implementation decision. Regardless of the timing of the use and the characteristics of the site, riparian resources would benefit when allocations are made in stages because the risk of unanticipated, short-term effects on riparian vegetation is reduced by the opportunity to evaluate change in increments.

For large decreases in authorized grazing use, the rate of change in grazing pressure would be decreased because only part of the decrease would be in effect starting with the first year. To the extent use levels, rather than timing or duration, rates of riparian recovery may be affected until the full reduction is accomplished. However, the rate and potential for riparian recovery on many streams is much more strongly correlated to timing of use.

In most instances, a carefully implemented and progressive management strategy that produces the intended results creates public support and understanding. Under the modified approach, changes that produce positive riparian condition responses might be implemented more slowly, in some instances, with phase-in, and more quickly in others, without phase-in. However, the increased likelihood of grazing operator agreement and the mitigation benefits provided by phase-in would generally improve implementation effectiveness and delivery of the riparian improvement results.

Temporary Nonuse: Extending the co nsecutive year limit for temporary nonuse to 5 years would positively benefit riparian and aquatic resources by maintaining the flexibility of managers and operators to implement nonuse. The extension provides 2 years of additional access to a cooperative option to promote additional rest.

Basis for Rangeland Health Determinations: Using either standards

assessment or monitoring as a basis for determining that existing grazing management practices or levels of grazing use are significant factors in failing to achieve standards and conform with guidelines would have a minimal effect on riparian and wetland vegetation. If either assessments or monitoring show that grazing management practices or levels of grazing use are significant factors in failing to achieve standards or conform with guidelines, then the Authorized Officer can pursue a change in livestock management. However, the flexibility to direct funding for monitoring would focus monitoring efforts on the highest priority needs or issues.

Prohibited Acts: Elimination of several acts prohibited by present and proposed regulations would have both short- and long-term negative effects on riparian and wetland vegetation in a limited number of locations, to the extent other primary enforcement authorities are an ineffective deterrent.

Adding a provision on weeds: Adding a provision making the use of noncertified weed seed-free forage, grain, straw, or mulch where certified is required a prohibited act will have a positive effect on riparian and wetland vegetation. Reducing the likelihood that weeds will be introduced into riparian areas will benefit native riparian species by minimizing competition from introduced weeds. Invasive exotics reduce riparian area stability, consume scarce water, alter wildlife habitat, and compete with beneficial native plant species.

4.4.3 Fire and Fuels

Alternative Three is the same as the analysis for the proposed action in Section 4.3.3

4.4.4 Soils

4.4.4.1 Upland Soils

The effects of Alternative Three would be neutral to slightly beneficial for upland soils because of maintenance or slight improvement of watershed cover.

Implementation of Changes in Grazing Use: The discretionary 5-year phase-in of changes in grazing use could result in more rapid improvement of vegetation, soil cover, and watershed condition than the Proposed Action Alternative.

Temporary Nonuse: The five-year limit on nonuse for grazing would reduce the positive effects of that rule change in comparison with those of the Proposed Action Alternative. Allotments needing more than 5 years for natural recovery of watershed cover may not achieve objectives for protection of the upland soil resource.

Basis for Rangeland Health Determination: The option of using either rangeland health assessments or monitoring as a basis for determining failure to achieve rangeland health standards would be beneficial to upland soil resources since there would be less potential delay in making that determination. An accelerated implementation of management changes would result in more rapid improvement in resource conditions.

Timeframe for Taking Action to Meet Rangeland Health Standards: The effects would be the same as those of the Proposed Action Alternative.

Prohibited Acts: The addition of the provision on weed seed-free forage, grain, straw, or mulch could have a beneficial effect if it results in a reduction in the spread of noxious weeds on public lands. Noxious weeds can provide less effective watershed cover than native vegetation. Noxious weeds can also alter soil biological communities,

thus decreasing restoration success for native species requiring mycorrhizal fungi and other biological components of the natural soils. Elimination of several acts prohibited by present and proposed regulations would have both short- and long-term negative effects in a limited number of locations, to the extent other primary enforcement authorities are an ineffective deterrent.

4.4.4.2 Riparian Soils

The effects of Alternative Three would be neutral to slightly beneficial for riparian soils because of maintenance or a slight improvement of watershed cover.

Implementation of Changes in Grazing Use: The effects would be the same as those of the Proposed Action Alternative.

Temporary Nonuse: The 5-year limit on nonuse for grazing would reduce the positive effects of that rule change in comparison with the Proposed Action Alternative. Riparian areas needing more than 5 years for natural recovery of desirable riparian vegetation may not attain adequate protection of riparian soil resources.

Basis for Rangeland Health Determinations: The option of using either rangeland health assessments or monitoring as a basis for determinations of failure to achieve rangeland health standards would be beneficial to riparian soil resources since there would be less potential delay in making that determination. An accelerated implementation of management changes would result in more rapid improvement in resource condition.

Timeframe for Taking Action to Meet Rangeland Health Standards: The effects would be the same as those of the Proposed Action Alternative.

Prohibited Acts: The addition of the provision on weed seed-free forage, grain, straw, or mulch could have a beneficial effect if doing so reduces the spread of noxious weeds in riparian areas. Noxious weeds can provide less effective riparian soil protection than native vegetation. Noxious weeds can also alter soil biological communities, thus decreasing restoration success for native species requiring mycorrhizal fungi and other biological components of the natural soil. Elimination of several acts prohibited by present and proposed regulations would have both short- and long-term negative effects in a limited number of locations to the extent other primary enforcement authorities are an ineffective deterrent.

4.4.5 Water Resources

The effects of Alternative Three would be similar to the effects of the proposed alternative except as noted here.

Implementation of Changes in Grazing Use: Rapid implementation of changes in management may accelerate short-term water resource improvement over the proposed alternative but would not affect long-term watershed recovery rates.

Prohibited Acts: The addition of the provision on weed seed-free forage, grain, straw, or mulch could have a beneficial effect if it resulted in a reduction in the spread of noxious weeds. Noxious weeds can provide less-effective watershed protection than native vegetation. Elimination of several acts prohibited by present and proposed regulations would have both short- and long-term negative effects in a limited number of locations, to the extent other primary enforcement authorities are an ineffective deterrent.

4.4.6 Air Quality

The effects of the implementation of Alternative Three would be similar to those described for the proposed action. The minor regulation differences do not create

a measurable or describable difference in effects.

4.4.7 Wildlife

The effects on wildlife species in Alternative Three are similar to those identified for the proposed regulations except as described here.

Implementation of Changes in Grazing Use: Making the 5-year phase-in period discretionary rather than mandatory for any change in active use in excess of 10% may result in the BLM being able to make changes on the ground more rapidly to benefit wildlife.

Basis for Rangeland Health Determinations: The ability of the BLM to base failed rangeland health determinations on a rangeland health assessment or monitoring data would be beneficial to wildlife. This change from Alternative Two would enhance the BLM's ability to take corrective action at the earliest date within existing funding and staffing capability.

Temporary Nonuse: The proposal to limit BLM's ability to approve applications for nonuse to no more than 5 consecutive years may adversely affect wildlife. It may take more than 5 consecutive years to improve wildlife habitat to the desired state. However, mechanisms are in place to close areas to livestock grazing for longer than 5 years if conditions warrant.

Prohibited Acts: The addition of the provision on weed seed-free forage, grain, straw, or mulch would have a beneficial effect on wildlife if it reduces the spread of noxious weeds. Removing the capability of the BLM to address violations of Federal or State laws (regulations pertaining to the placement of poisonous bait or hazardous devices designed for the destruction of wildlife; application or storage of pesticides, herbicides, or other hazardous materials; alteration or destruction of natural stream courses without authorization, or aiding and abetting in the illegal take, destruction, or harassment of fish and wildlife resources; and illegal removal or destruction of archaeological or cultural resources) that have been prosecuted removes a mechanism for protecting wildlife and special status species. Such acts would still be prosecuted by the appropriate Federal or State agency; however, after conviction, the permittee or lessee could not be additionally penalized by having the grazing permit or lease denied, suspended, or canceled.

4.4.8 Special Status Species

The effects on special status species in Alternative Three are similar to those identified for the proposed regulations except for the elements described here. The effects on special status species are also similar to the effects of Alternative Three on wildlife species described in Section 4.4.7.

Implementation of Changes in Grazing Use: Making the 5-year phase-in period discretionary rather than mandatory for any change in active use in excess of 10 percent would provide more flexibility in protecting non-listed species and result in the BLM being able to make changes on the ground more rapidly to benefit special status species. Special status species would not be at risk from the potentially harmful delays in implementation of necessary conservation measures discussed under Alternative Two.

Temporary Nonuse: The proposal to limit the BLM's ability to approve applications for nonuse to no more than 5 consecutive years may adversely affect special status species. It may take more than 5 consecutive years to improve special status species habitat to the desired state. However, if needed, the area could still be closed to livestock grazing for longer than 5 years if conditions warrant.

Basis for Rangeland Health Determinations: The ability of the BLM to base failed rangeland health determinations

on a rangeland health assessment with or without monitoring data would positively affect special status species. This flexibility would enhance the BLM's ability to take corrective action at the earliest date within existing funding and staffing capability.

Prohibited Acts: The addition of the provision on weed seed-free forage, grain, straw, or mulch should have beneficial effects on special status species if doing so reduces the spread of noxious weeds. The concern for special status species on the proposal to eliminate some prohibited acts is the same as the concern for wildlife. There is no way to ascertain how having the capability to remove a rancher from the land has deterred illegal activities that can adversely affect special status species activities such as poisoning prairie dogs and ground squirrels; killing gray and Mexican wolves, grizzly bear, jaguars, and mountain lions; and others.

4.4.9 Wild Horses and Burros

The effects on wild horses and burros in Alternative Three are identical to those discussed in Alternative Two, with the following exceptions:

Implementation of Changes in Grazing Use: Changes in active use in excess of 10 percent in less than the 5-year phase-in period would be a benefit to the rangeland and the wild horses and burros that use it.

Prohibited Acts: The present regulations allow livestock operators to be cited for certain prohibited acts. The elimination of these prohibited acts would eliminate another deterrent if actions would be taken against a permittee or lessee. However, there are other regulatory mechanisms in place for enforcement of these acts, and the occurrences of permittees or lessees conducting these prohibited acts are rare.

4.4.10 Recreation

Overall, the effects on recreation from implementation of Alternative Three would be similar to those for Alternative Two. Slight differences are explained here, but are not considered noteworthy.

Prohibited Acts: Certain prohibited acts would be removed from the existing range regulations. Although the prohibited acts proposed for removal are activities that could diminish recreational opportunities, their removal would not be expected to affect recreation since those acts would continue to be prohibited in other regulations and laws.

This alternative would make the use of certified weed-free feed a requirement where established by the Authorized Officer. The recreational setting and opportunities for enjoyment of naturalness, wildlife observation, hunting, fishing, and access to recreational opportunities could be adversely affected by the introduction or spread of invasive species. This alternative would help protect the recreational setting by providing additional regulatory assistance in reducing the potential for noxious weed introduction. This alternative would be most evident on recreation permits and uses in special recreation areas, which are the most highly regulated and monitored.

4.4.11 Special Areas

Overall assumptions for all Alternatives: The BLM would base determinations and decisions resulting from the proposed action with full application of the originating proclamations, laws, and policies—whichever is appropriate—to determine implementation suitability. Special area mandates, including the preservation, protection, conservation, and enhancement of resources and other values and uses, must take priority over subordinate purposes.

Effects from the implementation of Alternative Three would be the same as those described for the proposed action. However, there are some slight differences in effects, as stated here.

Prohibited Acts: The provision includes failing to comply with the use of certified weed seed-free forage, grain, straw, or mulch, when required by the Authorized Officer. The regulation would provide a deterrent to the general public, including permittees or lessees, for introducing or spreading noxious weeds on public lands. BLM law enforcement rangers would have the authority to cite for the violation. Also, Alternative Three would remove provisions regarding prohibited acts related to violations of Federal or State laws pertaining to poisonous bait or hazardous devices, storage of hazardous materials, altering stream courses, water pollution, illegal take, destruction or harassment of fish or wildlife, and destruction or removal of cultural resources. Removing the above provisions would represent a potential loss of a deterrent for potential violators by eliminating punitive actions against grazing permits or leases.

4.4.12 Heritage Resources: Paleontological and Cultural Resources (Properties)

Issues to be considered under Alternative Three, Modied Action, are the same as those for the proposed action except for slight modifications to four of the elements (temporary nonuse provision, 5-year phase-in provision, rangeland health determination requirements, and prohibited acts). All of the previous changes or provisions that could have no affect on heritage resources would also have no affect under Alternative Three, including the slight modification in the temporary nonuse provision. Additionally, the provisions in Alternative Two that could affect heritage resources would also have an effect under Alternative Three.

New project developments will continue to be analyzed for effects on heritage resources on a case-by-case basis; for field office or district area wide planning efforts, the BLM addresses livestock grazing impacts at the land use planning or allotment management planning level. Cultural resource surveys precede management actions that could damage heritage resources (BLM Manual 8100, The Foundation for Managing Cultural Resources). Historic and prehistoric archaeological sites found during surveys would be protected in accordance with the National Historic Preservation Act of 1966 (revised) and other laws or executive orders as stated in the Code of Federal Regulations (36 CFR §800). Additionally, Tribal consultation begins as soon as possible in any case where it appears likely that the nature and/or location of the activity could affect Native American interests or concerns.

Implementation of Changes in Grazing Use: Having the 5-year phase-in provision be discretionary rather than mandatory may allow added flexibility to the relationship between permittee or lessee and the BLM at the local level. Also, this provision could have both beneficial and adverse effects on heritage resources. With decreasing use, heritage resources could be subject to continued effects before the decision is fully implemented; alternatively, with increasing use, the delay could allow extra time to provide protection or data recovery of sites that may be affected by the change.

Basis for Rangeland Health Determinations: Changes to the provision of Rangeland Health Determinations may indirectly affect heritage resources by increasing workload because of site or locality monitoring data requirements.

Prohibited Acts: Changes may have a slight adverse effect on heritage resources. The elimination of the "illegal removal or destruction of archaeological or cultural resources" clause could hinder the BLM's ability to take action against the permittee or lessee in the form of withholding issuance, cancellation, or suspension of his or her permit or lease. However, it does not preclude the BLM from taking action against the permittee or lessee for violation of Federal law. Overall, this would have a minor affect on the BLM's ability to protect and manage cultural resources as required by the National Historic Preservation Act and the Archaeological Resources Protection Act.

4.4.13 Economic Conditions

The economic effects of Alternative Three would more closely resemble those under the Proposed Action, with the exception of three following provisions:

Implementation of Changes in Grazing Use: Under Alternative Three, a 5-year phase-in of changes in use exceeding 10 percent would be discretionary rather than mandatory. When the 5-year phase-in is used, the effects would be the same as under the Proposed Action. A phase-in period of less than 5 years may require permittees to make management adjustments more quickly than might be preferred by them. However, a shorter phase-in would accelerate improvements in range conditions which, in turn, may have a long-term beneficial effect on permittees' operations.

Temporary Nonuse: Under Alternative Three, temporary nonuse could be annually approved for as long as 5 years. The economic effect of this would be somewhere between Present Management (where 3 consecutive years on nonuse may be approved) and the Proposed Action (where there are no limits on the number of consecutive years of approved nonuse). This provision offers an additional 2 consecutive years of nonuse, which would be a beneficial economic effect on permittees and would increase flexibility for both permittees and the BLM.

Basis for Rangeland Health Determinations: Under Alternative Three, the BLM would have discretion to use assessments or monitoring as a basis for failed rangeland health determinations. This differs from the Proposed Action, which requires that both assessments and monitoring be used. The provision would give the BLM greater flexibility than under the Proposed Action. All States now have some procedures for standards assessments and these may or may not also be accompanied by monitoring data when making determinations. Overall, greater flexibility to concentrate limited resources on priority allotments would affect the administrative costs or workloads of the BLM. The economic effect on permittees would primarily be that determinations might not be delayed and thus, proposed changes in use might occur earlier than under the Proposed Action.

4.4.14 Social Conditions

Basis for Rangeland Health Determinations: The proposed action could have minimal social effects on permittees and conservation and environmental groups by allowing the agency to choose to use either assessment or monitoring as a basis for determining range health. Both groups stated that they prefer monitoring to be the basis for important and controversial determinations of rangeland health. Choosing to use an assessment instead could force both groups to use their resources to conduct their own monitoring and to challenge the assessment-based decisions on those grounds. No effects

are expected on recreation groups (Table 4.4.14.1).

Temporary Nonuse: Minimal social effects are expected from this proposed action.

Prohibited Acts: These deletions could have adverse social effects on conservation and environmental groups who see this as a reduction in prohibited acts that will allow further degradation of grazing allotments. They see direct effects in the threat that some of these actions present to the quality of their local environment. Recreation groups could experience similar effects if previously prohibited acts reduce the quality of their recreation experience. Both groups see these changes as potentially requiring that they acquire and expend additional resources over time to monitor and challenge the deleted activities on grazing allotments and as reducing their formal avenues for applying pressure on range managers to stop such activities. Permittees will experience minimal social effects.

4.4.15 Environmental Justice

The environmental justice implications of the modified action alternative are substantially identical to that identified for the proposed regulations alternative.

4.5 Cumulative and Other Effects

The Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) for 40 CFR Parts 1500–1508 identify requirements for the Federal agencies to address the cumulative effects of proposed actions. Cumulative effects are defined as the effects on the environment resulting from the incremental effects of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

Table 4.4.14.1. Social effects of the modified action, alternative three.

Element	Group	Direct Effect	Indirect Effect	Cumulative Effect	Regional Differences	Likelihood of Occurrence
Implementation of Changes in Grazing Use	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Basis for Rangeland Health Determinations	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				
Temporary Nonuse	Permittees	Minimal				
	Conservation & Environmental	Minimal				
	Recreation	Minimal				

Source: Section 4.4.14, Final Environmental Impact Statement.

The scope of this proposed action and alternatives is very broad. The analysis of effects is therefore programmatic. Other broad-based initiatives and actions that are likely to contribute to cumulative effects are discussed below. In addition to the various programmatic actions, there will likely be regionally and locally based actions that will contribute to the cumulative effects.

As indicated in Chapter 1, the BLM has initiated an effort to develop grazing policies that would promote sustainable rangeland and sustainable ranching. The purpose of this effort, known as the Sustaining Working Landscapes policy initiative, would be to improve the long-term health and productivity of the public lands through innovative partnerships with permittees and lessees within the present regulatory framework. Twenty-four public workshops were held on the policy initiative in spring 2003. In summer and fall 2003, policy options were considered by 21 BLM Resource Advisory Councils throughout the West and recommendations were submitte d to the Director. All of this information is presently being reviewed. It was decided, however, that further action on the Sustaining Working Landscapes policy initiative would be deferred until comments had been received on the Proposed Rulemaking to amend the grazing regulations. It is reasonably foreseeable that policies would be developed and implemented over the next year to promote sustainable ranching and rangelands. However, it is not known at this time what the specifics of those policy proposals would be. It is likely that any policies that may be developed would focus on encouraging partnerships with permittees and lessees and others who may be interested in improving the health and productivity of the rangelands, as well as promoting mechanisms to facilitate more efficient ranching operations. The policy emphasis, therefore, will generally complement the objectives of the proposed regulatory amendments.

The Healthy Forests and Initiative and the National Fire Plan have also been identified as programmatic level policies that will affect rangelands. Both of these initiatives are collaborative efforts with all stakeholders to reduce the potential for devastating wildland fires. These efforts focus on improving the health of both forests and rangelands; it is reasonable to assume that over time rangelands would experience increasing positive benefit from these efforts. In addition, there are projects which train and equip ranchers to be qualified to assist in fire suppression and fuels treatment projects. These efforts promote partnership and cooperation with permittees and lessees in achieving mutually beneficial objectives.

Another initiative under way is the development of a programmatic Vegetation Treatment EIS. The goals of the Vegetation Treatment program are to manage vegetation to sustain the condition of healthy lands and, where land conditions have degraded, to restore vegetation to more healthy conditions. The vegetation treatment program, which covers a variety of vegetation treatment options and best management practices, will also complement the objectives of this Proposed Rulemaking.

A third critical initiative is the BLM Sage-Grouse Habitat Conservation Strategy. The primary goal of this strategy is to help address the precipitous population decline of the sage-grouse, a species under consideration for Federal listing under the ESA, through a comprehensive habitat conservation strategy. Today, the BLM manages more than 50% of the remaining sage-grouse habitat. The strategy is a sage-grouse rangewide effort that involves a diverse group of cooperators, including multiple Federal, State, and Tribal agencies, as well as special interest groups and

private landowners. Appropriate and timely conservation measures for sage-grouse are critical for preventing further population declines and ESA listing of the species. Conserving and improving habitat for native species such as sage-grouse are part of the objectives of improving rangeland health through better use of the Four C's. Therefore, the Sage Grouse Habitat Conservation Strategy is expected to complement the objectives of this Proposed Rulemaking.

Policies and procedures for promoting the Secretary's Four C's—consultation, cooperation, and communication all in the service of conservation—are also being developed. One of the purposes of this rulemaking is to improve working relations with our permittees and lessees, an important component in support of the Four C's philosophy.

In summary, the other related programs now being initiated or contemplated will cumulatively enhance and increase the positive outcomes and effects anticipated from this proposed rulemaking.

There are no irreversible or irretrievable commitments of resources directly resulting from the proposed regulation changes nor are there any projected discernable effects from short-term uses on long-term productivity of resources arising from this proposed rulemaking.

Most of the proposed regulatory changes have little or no adverse impacts on the human environment. Some short-term adverse effects may not be avoided because of increases in timeframes associated with several components of this proposed rulemaking, including the requirement for a 5-year phase-in of changes in use of over 10 percent, the requirement for monitoring before making a determination that livestock grazing is the causal factor for failure to meet standards and conform to guidelines, and the extension of time allowed before a decision must be made after a determination that livestock grazing is the causal factor for failure to meet standards and conform to guidelines for grazing administration. However, better and more sustainable decisions would be developed by using monitoring data in analyzing achievement of standards and by taking the time to carefully develop, formulate, and analyze the appropriate action and ensuring that all legal and consultation requirements are satisfied. In the long-term, it is expected that the effects of these provisions would be beneficial to rangeland health.

Mitigation measures are addressed in the development of Alternative Three. Additional mitigation measures would be appropriately developed when site-specific NEPA documents are prepared to implement the regulatory provisions.